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TO: Tamthom Troung

Location: REM/5C18 /5819

Art Unit: 1624

Monday, November 08, 2004

Cas Serial Number: 09/960477

From: Noble Jarrell

Location: Biotech-Chem Library

Rem 1B71

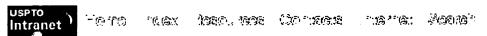
Phone: 272-2556

Noble.jarrell@uspto.gov

Search Notes	



Page 1 of 2



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Tech Center:

Enter your Contact Information below:

Name: TAMTHOM TRUONG

Employee Number: 74142 Phone: 20676

Art Unit or Office: 1624 Building & Room Number: 5B19

Enter the case serial number (Required): 09/ 960,477

If not related to a patent application, please enter NA here.

Class / Subclass(es) ?

Earliest Priority Filing Date:

Format preferred for results:

 Date Completed: Nav9, 2004 Preptime: 10 MIN Unline Time: 33MIN

Searcher. Noble

Structures: 1

STN: 15451

Provide detailed information on your search topic:

- In your own words, describe in detail the concepts or subjects you want us to search.
- Include synonyms, keywords, and acronyms. Define terms that have special meanings.
- *For Chemical Structure Searches Only*
 Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers
- *For Sequence Searches Only*
 Include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

- *For Foreign Patent Family Searches Only* Include the country name and patent number.
- Provide examples or give us relevant citations, authors, etc., if known.
- FAX or send the abstract, p rtinent claims (not all of the claims), drawings, r chemical structures to your EIC or branch library.

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FILE 'HCAPLUS' ENTERED AT 14:20:17 ON 08 NOV 2004 1.1 3 US20020177593/PN

FILE 'REGISTRY' ENTERED AT 14:20:31 ON 08 NOV 2004

FILE 'HCAPLUS' ENTERED AT 14:20:32 ON 08 NOV 2004 TRA L1 1- RN : L2

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FILE COVERS 1907 - 8 Nov 2004 VOL 141 ISS 20 FILE LAST UPDATED: 7 Nov 2004 (20041107/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

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- ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2004 ACS on STN
- 2002:907186 HCAPLUS AN
- 138:350 DN
- ED Entered STN: 29 Nov 2002
- Agents and crystals for improving excretory potency of urinary bladder Ishihara, Yuji; Doi, Takayuki; Nagabukuro, Hiroshi; Ishichi, Yuji ΤI
- IN
- PA
- U.S. Pat. Appl. Publ., 65 pp., Cont.-in-part of U.S. Ser. No. 787,288. CODEN: USXXCO
- DT Patent
- LА English
- ICM A61K031-55
 - ICS A61K031-54; A61K031-535; A61K031-495; A61K031-40; A61K031-445
- NCL 514227500; 514217120; 514238800; 514252120; 514317000; 514428000;
- 514649000
- 1-12 (Pharmacology)

Section cross-reference(s): 27, 63

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                        514428000; 514649000
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                        C07D471/06; C07D487/04
os
     MARPAT 138:350
AΒ
     Agents for improving potency of the urinary bladder which comprises an
     amine compound of non-carbamate-type having an acetylcholinesterase-
     inhibiting action. Particularly, crystals of a tricyclic, condensed,
     heterocyclic derivative are provided, which possess an excellent action to
     inhibit acetylcholinesterase and an action to improve the excretory
     potency of urinary bladder. As an example, crystals of
     8-[3-[1-[(3-fluorophenyl)-methyl]-4-piperidinyl]-1-oxopropyl]-1,2,5,6-
     tetrahydro-4H-pyrrolo[3,2,1-ij]quinolin-4-one or a salt thereof and
     pharmaceutical compns. containing them are disclosed.
ST
     amine urinary bladder excretion acetylcholinesterase inhibitor;
     heterocyclic deriv amine urinary bladder excretion crystal
TT
     Bladder
        (agents and crystals for improving excretory potency of urinary bladder
        with acetylcholinesterase-inhibiting action)
IT
     Prostate gland, disease
        (benign hyperplasia, dysuria from; agents and crystals for improving
        excretory potency of urinary bladder with acetylcholinesterase-
        inhibiting action)
IT
     Brain, disease
        (block, dysuria from bladder disease in; agents and crystals for
        improving excretory potency of urinary bladder with
        acetylcholinesterase-inhibiting action)
TT
     Drug delivery systems
        (carriers; agents and crystals for improving excretory potency of
        urinary bladder with acetylcholinesterase-inhibiting action)
IT
     Nerve, disease
        (diabetic neuropathy, dysuria from bladder disease in; agents and
        crystals for improving excretory potency of urinary bladder with
        acetylcholinesterase-inhibiting action)
TT
     Aging, animal
     Diabetes mellitus
     Multiple sclerosis
     Parkinson's disease
        (dysuria from bladder disease in; agents and crystals for improving
        excretory potency of urinary bladder with acetylcholinesterase-
        inhibiting action)
IT
     Urinary tract, disease
        (dysuria, treatment; agents and crystals for improving excretory
        potency of urinary bladder with acetylcholinesterase-inhibiting action)
IT
     Urine
        (excretion; agents and crystals for improving excretory potency of
        urinary bladder with acetylcholinesterase-inhibiting action)
IT
     Bladder, disease
        (hypotonic, dysuria from; agents and crystals for improving excretory
        potency of urinary bladder with acetylcholinesterase-inhibiting action)
IT
        (improvement of; agents and crystals for improving excretory potency of
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urinary bladder with acetylcholinesterase-inhibiting action)
IT
    Spinal cord, disease
        (injury, dysuria from bladder disease in; agents and crystals for
        improving excretory potency of urinary bladder with acetylcholinesterase-inhibiting action)
IT
    Bladder, disease
        (neurogenic, dysuria from; agents and crystals for improving excretory
       potency of urinary bladder with acetylcholinesterase-inhibiting action)
TT
    Muscle contraction
        (of urinary bladder, stimulation of; agents and crystals for improving
        excretory potency of urinary bladder with acetylcholinesterase-
        inhibiting action)
IT
    Surgery
        (post, dysuria from bladder disease in; agents and crystals for
        improving excretory potency of urinary bladder with
       acetylcholinesterase-inhibiting action)
ΙT
    Drug delivery systems
        (tablets; agents and crystals for improving excretory potency of
        urinary bladder with acetylcholinesterase-inhibiting action)
TΤ
    Adrenoceptor antagonists
        (.alpha.-, acetylcholinesterase inhibitor combined with; agents and
        crystals for improving excretory potency of urinary bladder with
        acetylcholinesterase-inhibiting action)
IT
    9000-81-1, Acetylcholinesterase
    RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (agents and crystals for improving excretory potency of urinary bladder
        with acetylcholinesterase-inhibiting action)
    263248-16-4P
    RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic
    preparation); THU (Therapeutic use); BIOL (Biological study); PREP
     (Preparation); RACT (Reactant or reagent); USES (Uses)
        (agents and crystals for improving excretory potency of urinary bladder
        with acetylcholinesterase-inhibiting action)
    263248-18-6P 263248-36-8P 263248-38-0P
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     321-64-2, 9-Amino-1,2,3,4-tetrahydroacridine
                                                   120011-70-3
     142852-09-3
                  142852-11-7
                                142852-41-3
                                               142852-51-5
                                                             142872-94-4
                   263248-14-2
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    100-39-0, Benzyl bromide 456-41-7, 3-Fluorobenzyl bromide
     131417-49-7, 3-(1-Acetyl-4-piperidinyl)propionic acid
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        (agents and crystals for improving excretory potency of urinary bladder
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    142853-09-6P
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        (agents and crystals for improving excretory potency of urinary bladder
        with acetylcholinesterase-inhibiting action)
    377724-20-4P
    RL: SPN (Synthetic preparation); PREP (Preparation)
        (agents and crystals for improving excretory potency of urinary bladder
       with acetylcholinesterase-inhibiting action)
L1
    ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2004 ACS on STN
     2001:873241 HCAPLUS
AN
    136:15242
DN
ED
    Entered STN: 04 Dec 2001
    Crystals of condensed heterotricycle as acetylcholinesterase inhibitor and
ΤI
    pharmaceutical compositions containing the crystals
     Ishihara, Yuji; Doi, Takayuki; Ishiji, Yuji
TN
PA
    Takeda Chemical Industries, Ltd., Japan
    Jpn. Kokai Tokkyo Koho, 50 pp.
     CODEN: JKXXAF
DT
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Patent

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Japanese
LΑ
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          A61K031-437; A61K045-00; A61P013-00; A61P013-10; A61P025-28;
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     1-11 (Pharmacology)
     Section cross-reference(s): 27, 63
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                        C07D401/06; C07D401/06; C07D471/06; C07D487/04
GI
```

Crystals of 8-[3-[1-[(3-fluorophenyl)methyl]-4-piperidinyl]-1-oxopropyl]1,2,5,6-tetrahydro-4H-pyrrolo[3,2,1-ij]quinolin-4-one (I) or its salts,
preferably having m.p. 113-118.degree., and pharmaceutical compns. containing
the crystals are claimed. The compns. are useful for treatment of dysuria
by increasing force of bladder emptying. The crystals may be used in
combination with .alpha.-blockers. Thus, crude crystal of I (preparation
given) was dissolved in AcOEt/MeOH/CHCl3 and the solution was subjected to
silica gel chromatog. After repeating the process, the crystal was
dissolved in EtOH and the solution was heated to remove EtOH and cooled under
stirring for 6 h to give I having m.p. 114-117.degree..

ST condensed heterotricycle crystal prepn acetylcholinesterase inhibitor;

pyrroloquinolinone deriv prepn acetylcholinesterase inhibitor dysuria treatment

IT Urinary tract, disease

(dysuria; preparation of crystals of pyrroloquinolinone derivative as acetylcholinesterase inhibitor for treatment of dysuria)

IT Bladder

(force of emptying; preparation of crystals of pyrroloquinolinone derivative as acetylcholinesterase inhibitor for treatment of dysuria)

IT Micturition

(preparation of crystals of pyrroloquinolinone derivative as acetylcholinesterase inhibitor for treatment of dysuria)

IT Adrenoceptor antagonists

(.alpha.-; preparation of crystals of pyrroloquinolinone derivative as acetylcholinesterase inhibitor for treatment of dysuria)

IT 9000-81-1, Acetylcholinesterase

RL: BSU (Biological study, unclassified); BIOL (Biological study) (preparation of crystals of pyrrologuinolinone derivative as acetylcholinesterase inhibitor for treatment of dysuria)

IT 263248-16-4P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of crystals of pyrroloquinolinone derivative as acetylcholinesterase inhibitor for treatment of dysuria) ${\bf r}$

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IT
    456-41-7, 3-Fluorobenzyl bromide
                                         57369-32-1 131417-49-7,
     3-(1-Acetyl-4-piperidinyl)propionic acid
     RL: RCT (Reactant); RACT (Reactant or reagent)
         (preparation of crystals of pyrroloquinolinone derivative as
        acetylcholinesterase inhibitor for treatment of dysuria)
IT
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     (Reactant or reagent)
        (preparation of crystals of pyrroloquinolinone derivative as
        acetylcholinesterase inhibitor for treatment of dysuria)
IT
     377724-20-4P
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     Entered STN: 07 Apr 2000
     Acetylcholinesterase-inhibiting amines for improving bladder vesical
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     excretory strength
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     Ishihara, Yuji; Doi, Takayuki; Nagabukuro, Hiroshi; Ishichi, Yuji
     Takeda Chemical Industries, Ltd., Japan
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     PCT Int. Appl., 165 pp.
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     MARPAT 132:260683
AB
     Drugs for improving bladder vesical excretory strength which contain a
     non-carbamate amine compound (Markush's structures given) having an
     acetylcholinesterase inhibitory effect.
     amine acetylcholinesterase bladder vesical excretory strength
     Amines, biological studies
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
     BIOL (Biological study); PREP (Preparation); USES (Uses)
        (acetylcholinesterase-inhibiting amines for improving bladder vesical
        excretory strength)
IT
    Bladder
        (diseases; acetylcholinesterase-inhibiting amines for improving bladder
        vesical excretory strength)
    Drug delivery systems
IT
        (tablets; acetylcholinesterase-inhibiting amines for improving bladder
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     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
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        (acetylcholinesterase-inhibiting amines for improving bladder vesical
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excretory strength)
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(1) Chao-Mei, Y; US 5177082 A 1993 HCAPLUS
(2) Eisai Co Ltd; CN 1030752 A HCAPLUS
(3) Eisai Co Ltd; JP 179151 A
(4) Eisai Co Ltd; US 4895841 A HCAPLUS
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(7) Eisai Co Ltd; DK 8803379 A HCAPLUS
(8) Eisai Co Ltd; ZA 8804338 A HCAPLUS
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(12) Hoechst-Roussel Pharmaceuticals Incorporated; CA 2061422 A HCAPLUS
(13) Hoechst-Roussel Pharmaceuticals Incorporated; US 5155226 A HCAPLUS
(14) Hoechst-Roussel Pharmaceuticals Incorporated; BR 9200524 A HCAPLUS
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(27) Snorrason; WO 9220327 Al 1992 HCAPLUS
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(30) Takeda Chemical Industries Ltd; CA 2113603 A HCAPLUS
(31) Takeda Chemical Industries Ltd; TW 248556 A
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(34) Takeda Chemical Industries Ltd; US 5686466 A HCAPLUS
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(36) Takeda Chemical Industries Ltd; NO 9400163 A HCAPLUS (37) Takeda Chemical Industries Ltd; ZA 9400203 A HCAPLUS
(38) Takeda Chemical Industries Ltd; FI 9400229 A HCAPLUS
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     Crystalline 8-(3-(1-((3-fluorophenyl)methyl)-4-piperidinyl)-1-oxopropyl)-
     1,2,5,6-tetrahydro-4H-pyrro(3,2,1-ij)quinolin-4-one and its compositions,
     useful for treating e.g. urination trouble and dysuria, are
     acetylcholinesterase inhibitors.
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     NOVELTY - Crystalline 8-(3-(1-((3-fluorophenyl)methyl)-4-piperidinyl)-1-
     oxopropyl)-1,2,5,6-tetrahydro-4H-pyrro(3,2,1-ij)quinolin-4-one (I) and its
     pharmaceutical compositions with acetylcholinesterase inhibition are new.
          DETAILED DESCRIPTION - Crystalline 8-(3-(1-((3-fluorophenyl)methyl)-4-
     piperidinyl)-1-oxopropyl)-1,2,5,6-tetrahydro-4H-pyrro(3,2,1-ij)quinolin-4-
     one its salts, and pharmaceutical compositions optionally combined with
     alpha-blockers are prepared.
          USE - The compound, its salts, and compositions are useful
     acetylcholinesterase inhibitory, vesical micturition improving, urination
     trouble treating, and dysuria treating agents.
     ADVANTAGE - The crystals are of good quality, low hygroscopicity, and high stability and exhibit excellent acetylcholinesterase inhibitiory and
     vesical micturition improving activities.
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FS
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     19990930; JP 2000169373 A JP 1999-275614 19990929; NO 2001001602 A WO
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     non-carbamate amine compound having acetylcholinesterase inhibitory
     activity.
          ACTIVITY - Uropathic. In a urination production test on Hartley
     guinea pigs 8-(3-(1-((3-fluorophenyl)methyl)-4-piperidinyl)-1-oxopropyl)-
     1,2,5,6-tetrahydro-4H-pyrrolo(3,2,1-ij)quinolin-4-one at 0.01 mg/kg
     increased urine production by 77.0% compared to 12.9% for vehicle alone
     and 20.4% for distigmine.
          MECHANISM OF ACTION - Anticholinesterase.
          USE - As acetylcholinesterase inhibitors for improving vesical
     excretory strength useful for treating or preventing dysuria and urination
     difficulties.
     Dwg.0/0
FS
     CPI
     AB; GI; DCN
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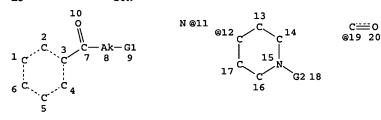
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          52159 SEA L18
L21
                TRA L17 451-50000 RN :
                                          51569 TERMS
L22
          51569 SEA L21
L23
         101074 L19 OR L22
L24
              4 L5 SAM SUB=L23
L25
            112 L5 FULL SUB=L23
                SAVE TEMP L25 TRU477SO/A
     FILE 'HCAPLUS' ENTERED AT 14:56:20 ON 08 NOV 2004
          11613 L25
L26
     FILE 'HCAOLD' ENTERED AT 14:56:30 ON 08 NOV 2004
L27
            161 L25
                SEL AN
                EDIT E1-E161 /AN /OREF
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           313 E1-161
1.28
L29
          11770 L26 OR L28
                E ISHIHARA Y/AU
L30
             92 E3
                E ISHIHARA YUJI/AU
L31
             82 E3
                E DOI T/AU
L32
            159 E3-4
                E DOI TAKAYUKI/AU
L33
            154 E3
                E NAGABUKURO H/AU
L34
             11 E3-4
                E ISHICHI Y/AU
L35
             16 E4
L36
          14470 TAKEDA/CS, PA
              5 L29 AND L30-36
L37
          11765 L29 NOT L37
L38
          11764 L38 AND (PY<=1998 OR AY<=1998 OR PRY<=1998 OR PRY<19980930 OR P
L39
L40
            167 L39 AND L17
             74 L40 AND P/DT
L41
             19 L41 AND US/PC.B
L42
=> b hcap
FILE 'HCAPLUS' ENTERED AT 15:05:40 ON 08 NOV 2004
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26, 1996), unless otherwise indicated in the original publications.
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FILE COVERS 1907 - 8 Nov 2004 VOL 141 ISS 20 FILE LAST UPDATED: 7 Nov 2004 (20041107/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

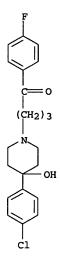
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L37 ANSWER 1 OF 5 HCAPLUS COPYRIGHT 2004 ACS on STN
     1999:17300 HCAPLUS
DN
     130:276572
     Entered STN: 12 Jan 1999
ED
TΙ
     TAK-147, an acetylcholinesterase inhibitor, increases choline
     acetyltransferase activity in cultured rat septal cholinergic neurons
     Kato, Koki; Hayako, Hitomi; Ishihara, Yuji; Marui, Shogo; Iwane,
     Makoto; Miyamoto, Masaomi
CS
     Pharmaceutical Research Division, Pharmaceutical Research Laboratories V,
     Takeda Chemical Industries Ltd., Yodogawa-ku, Osaka, 532-8686,
     Neuroscience Letters (1999), 260(1), 5-8
CODEN: NELED5; ISSN: 0304-3940
SO
PR
     Elsevier Science Ireland Ltd.
\mathbf{DT}
     Journal
LΑ
     English
     1-11 (Pharmacology)
CC
     TAK-147, a potent acetylcholinesterase (AChE) inhibitor, potentiated
     choline acetyltransferase (ChAT) activity in cultured rat septal
     cholinergic neurons in a concentration-dependent manner with an EC50 value of
     4.47 nM. Donepezil, another potent AChE inhibitor, also increased ChAT
     activity although its potency was less than that of TAK-147. Other AChE
     inhibitors (rivastigmine, tacrine, physostigmine and neostigmine) showed no effect. The effects of TAK-147 were greater in the presence of NGF,
     suggesting a synergistic action of TAK-147 and NGF. TAK-147 and donepezil
     showed high affinity for .sigma. receptors, whereas tacrine and
```

```
physostigmine did not. Haloperidol and ifenprodil, high-affinity .sigma.
      ligands, potently enhanced ChAT activity in the septal neurons. These
      results suggest that TAK-147 may have neurotrophic activity on central
      cholinergic neurons, not via AChE inhibition but possibly via an effect on
      .sigma. receptors.
ST
      brain cholinergic neuron TAK147 choline acetyltransferase
          (cholinerqic; TAK-147, an acetylcholinesterase inhibitor, increases
          choline acetyltransferase activity in cultured rat septal cholinergic
          neurons)
IT
      Brain
      Brain
          (septum pellucidum, cholinergic system; TAK-147, an
         acetylcholinesterase inhibitor, increases choline acetyltransferase activity in cultured rat septal cholinergic neurons)
IT
      Opioid receptors
      RL: BSU (Biological study, unclassified); BIOL (Biological study)
          (.sigma.-opioid; TAK-147, an acetylcholinesterase inhibitor, increases
          choline acetyltransferase activity in cultured rat septal cholinergic
         neurons)
      52-86-8, Haloperidol 57-47-6, Physostigmine 59-99-4,
TT
      Neostigmine 321-64-2, Tacrine 9061-61-4, Nerve growth factor 23210-56-2, Ifenprodil 120014-06-4, Donepezil 123441-03-2,
      Rivastigmine 142852-51-5, TAK-147
      RL: BAC (Biological activity or effector, except adverse); BSU (Biological
      study, unclassified); BIOL (Biological study)
          (TAK-147, an acetylcholinesterase inhibitor, increases choline
          acetyltransferase activity in cultured rat septal cholinergic neurons)
IT
      9012-78-6, Choline acetyltransferase
      RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL
      (Biological study); PROC (Process)
          (TAK-147, an acetylcholinesterase inhibitor, increases choline
         acetyltransferase activity in cultured rat septal cholinergic neurons)

19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE.CNT 19
RE
(1) Bachy, A; Fundam Clin Pharmacol 1993, V7, P487 MEDLINE
(2) Bartus, R; Science 1983, V217, P408
(3) Coyle, J; Science 1983, V219, P1184 MEDLINE
(4) Davies, P; Lancet 1976, V2, P1403 MEDLINE
(5) DeCoster, M; Brain Res 1995, V671, P45 HCAPLUS
(6) Fonnum, F; J Neurochem 1975, V24, P407 HCAPLUS
(7) Hanner, M; Proc Natl Acad Sci USA 1996, V93, P8072 HCAPLUS
(8) Hatanaka, H; Dev Brain Res 1986, V30, P47 HCAPLUS
(9) Hefti, F; J Neurosci 1986, V6, P2155 HCAPLUS
(10) Hirai, K; J Pharmacol Exp Ther 1997, V280, P1261 HCAPLUS
(11) Iwane, M; Biochem Biophys Res Commun 1990, V171, P116 HCAPLUS
(12) Kakihana, M; Mol Chem Neuropathol 1993, V18, P51 HCAPLUS
(13) Maurice, T; Prog Neuro-Psychopharmacol Biol Psychiat 1997, V21, P69
    HCAPLUS
(14) Miyamoto, M; J Pharmacol Exp Ther 1996, V277, P1292 HCAPLUS
(15) Pradines, A; J Neurochem 1995, V64, P1954 HCAPLUS
(16) Seiner, A; Behav Brain Res 1993, V57, P255
(17) Sofroniew, M; Alzheimer Res 1996, V2, P7 HCAPLUS (18) Su, T; Eur J Biochem 1991, V200, P633 HCAPLUS (19) Williams, J; Proc Natl Acad Sci USA 1986, V83, P9231
      52-86-8, Haloperidol
      RL: BAC (Biological activity or effector, except adverse); BSU (Biological
      study, unclassified); BIOL (Biological study)
          (TAK-147, an acetylcholinesterase inhibitor, increases choline
          acetyltransferase activity in cultured rat septal cholinergic neurons)
      52-86-8 HCAPLUS
RN
      1-Butanone, 4-[4-(4-chlorophenyl)-4-hydroxy-1-piperidinyl]-1-(4-fluorophenyl)- (9CI) (CA INDEX NAME)
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CN



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L37 ANSWER 2 OF 5 HCAPLUS COPYRIGHT 2004 ACS on STN
     1983:160624 HCAPLUS
DN
     98:160624
     Entered STN: 12 May 1984
ED
     Studies on antidiabetic agents. III. 5-Arylthiazolidine-2,4-diones as
     potent aldose reductase inhibitors
     Sohda, Takashi; Mizuno, Katsutoshi; Imamiya, Eiko; Tawada, Hiroyuki;
ΑU
     Meguro, Kanji; Kawamatsu, Yutaka; Yamamoto, Yujiro
CS
     Cent. Res. Div., Takeda Chem. Ind., Ltd., Osaka, 532, Japan
so
     Chemical & Pharmaceutical Bulletin (1982), 30(10), 3601-16
     CODEN: CPBTAL; ISSN: 0009-2363
DT
     Journal
LA
     English
CC
     28-7 (Heterocyclic Compounds (More Than One Hetero Atom))
     Section cross-reference(s): 1
GI
```

AB Thiazolidine-2,4-dione derivs. (86 compds. having one or two substituent(s) such as Ph, heteroaryl and alkyl group(s) at the 5-position were synthesized by several methods and evaluated as aldose reductase inhibitors. Thus o-EtC6H4CHBrCO2Me was cyclized with H2NCSNH2 to give its thiazolidine I (X = NH), which was hydrolyzed to give I (X = O). Inhibition by the active compds. of the swelling of the lens in a rat-lens-culture assay was also measured. Among these compds., a series of 5-(3,4-dialkoxyphenyl)thiazolidine-2,4-diones showed pronounced activities in both assays. Structure-activity relationships are discussed and a new approach to the synthesis of 5-arylthiazolidine-2,4-diones is described.

ST thiazolidinedione aryl prepn antidiabetic; antidiabetic arylthiazolidinedione; aldose reductase inhibitor arylthiazolidinedione; thiourea cyclization phenylbromoacetate

IT Antidiabetics and Hypoglycemics

(arylthiazolidinediones)

IT 4998-15-6

RL: RCT (Reactant); RACT (Reactant or reagent)

(acylation by, of benzene)

IT 71-43-2, reactions

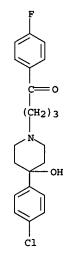
RL: RCT (Reactant); RACT (Reactant or reagent) (acylation by, of chlorophenylglyoxal)

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IT
    2049-73-2
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (acylation by, of ethoxalyl chloride)
                                    139-85-5
     121-32-4 121-33-5 123-08-0
IT
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (alkylation of)
     104-03-0
              2444-36-2
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (bromination and esterification of)
     123-11-5, reactions
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (coupling of, dimethylbenzoin from)
ΙT
     62-56-6P, preparation
     RL: RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
        (cyclization of, with haloacetonitriles and haloacetate,
       thiadiazolidinediones from)
IT
     74649-69-7
                79714-24-2
                              85259-18-3 85259-52-5
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (cyclization of, with thiourea)
     85259-43-4
IT
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (elimination reaction of)
     79615-67-1 85259-53-6
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (hydrolysis of)
TТ
     9028-31-3
     RL: USES (Uses)
       (inhibitors, arylthiazolidinediones)
     3324-15-0P 4695-04-9P 4695-17-4P 74772-77-3P 74773-17-4P
IT
                  79712-14-4P
                                79712-15-5P
                                              79712-16-6P
                                                            79712-17-7P
     79712-13-3P
     79712-18-8P
                  79712-19-9P
                                79712-20-2P
                                               79712-21-3P
                                                             79712-22-4P
     79712-23-5P
                  79712-24-6P
                                79714-27-5P
                                               79714-29-7P
                                                            79714-31-1P
                                               79714-36-6P
                                                             79714-37-7P
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                                79714-35-5P
     79714-33-3P
                                               82124-26-3P
                   79714-39-9P
                                79714-40-2P
                                                            82124-27-4P
     79714-38-8P
     82124-28-5P
                  82124-29-6P
                                82124-30-9P
                                               82124-31-0P
                                                            82124-32-1P
                                               82124-36-5P
                                                             82124-37-6P
     82124-33-2P
                  82124-34-3P
                                82124-35-4P
     82172-86-9P
                 82172-87-0P
                                82172-88-1P
                                               82172-89-2P
                                                            82172-90-5P
     82172-92-7P
                  82172-93-8P
                                85002-47-7P
                                               85002-48-8P
                                                             85258-75-9P
     85258-76-0P
                  85258-77-1P
                                85258-78-2P
                                               85258-79-3P
                                                            85258-80-6P
                  85258-83-9P
                                 85258-84-0P
                                               85258-85-1P
                                                             85258-86-2P
     85258-82-8P
     85258-87-3P
                  85258-88-4P
                                 85258-89-5P
                                               85258-90-8P
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                                               85258-95-3P
     85258-92-0P
                  85258-93-1P
                                85258-94-2P
                                                             85258-96-4P
     85258-97-5P
                  85258-98-6P
                                85258-99-7P
                                               85259-00-3P
                                                             85270-43-5P
     85270-44-6P
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (preparation and aldose reductase inhibition by)
IT
     85259-26-3P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (preparation and chlorination of)
     3802-78-6P
                 7550-04-1P 24091-92-7P
                                            74649-69-7P 81265-17-0P
TT
     85258-81-7P
                  85259-15-0P
                              85259-16-1P
                                              85259-17-2P
                                                            85259-19-4P
     85259-22-9P
                  85259-33-2P
                                85259-40-1P
                                               85259-41-2P
                                                             85259-54-7P
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (preparation and cyclization with thiourea)
     75-25-2P 79714-23-1P 85259-01-4P 85259-02-5P
                                                         85259-03-6P
IT
     85259-04-7P 85259-05-8P 85259-06-9P 85259-20-7P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (preparation and hydrolysis of)
     1218-89-9P 39774-18-0P 85259-31-0P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (preparation and oxidation of)
IT
     85259-07-0P
                  85259-08-1P 85259-09-2P
                                               85259-10-5P
                                                             85259-11-6P
                  85259-13-8P
     85259-12-7P
                                85259-14-9P
                                              85259-42-3P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (preparation and ozonolysis of)
                  68490-12-0P
                                85259-28-5P
                                               85259-29-6P
                                                             85259-32-1P
     18986-09-9P
     85259-44-5P
                  85259-45-6P
                                 85259-46-7P
                                               85259-47-8P
                                                             85259-48-9P
                  85259-50-3P
                                85259-51-4P
     85259-49-0P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (preparation and reaction with cyanide)
     62323-56-2P 85259-36-5P 85259-37-6P
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RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (preparation and reaction with thionyl chloride)
IT
     3327-51-3P 3457-48-5P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (preparation and rearrangement of)
                                85259-35-4P
     85259-30-9P 85259-34-3P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (preparation and reduction of)
     4075-58-5P
TΨ
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (preparation of)
     2695-79-6P
                 85259-21-8P
                               85259-23-0P
                                              85259-24-1P
                                                            85259-25-2P
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (preparation, esterification, chlorination, and cyclization with thiourea)
     110-53-2
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (reaction of, with Et vanillin)
TT
     79714-25-3
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (reaction of, with bromoform)
     6287-86-1 59067-46-8
IT
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (reaction of, with cyanide)
     4755-77-5
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (reaction of, with diethoxybenzene)
TΤ
     61380-07-2
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (reaction of, with hydroxybenzaldehyde)
     109-65-9
IT
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (reaction of, with protocatechualdehyde)
                62323-55-1
     7550-03-0
                              77062-85-2
                                           85259-38-7
                                                         85259-39-8
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (reaction of, with thionyl chloride)
IT
     2346-07-8
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (reaction of, with vanillin)
IT
     7498-72-8
                34082-45-6
                             35190-07-9
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (rearrangement of)
IT
     1813-94-1 34036-28-7
                              53017-34-8
                                          62936-36-1
                                                        73980-24-2
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (reduction of)
IT
     3457-48-5P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (preparation and rearrangement of)
RN
     3457-48-5 HCAPLUS
     Ethanedione, bis(4-methylphenyl) - (9CI) (CA INDEX NAME)
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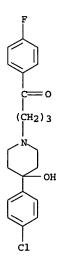
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ANSWER 3 OF 5 HCAPLUS COPYRIGHT 2004 ACS on STN
L37
AN
     1981:57820 HCAPLUS
DN
     94:57820
     Entered STN: 12 May 1984
ED
TI
     Antagonistic effects of psycholeptic drugs on stress-induced analgesia
     Doi, T.; Sawa, N.
     Cent. Res. Div., Takeda Chem. Ind. Ltd., Osaka, 532, Japan
CS
so
     Archives Internationales de Pharmacodynamie et de Therapie (1980), 247(2),
     264-74
     CODEN: AIPTAK; ISSN: 0003-9780
DT
     Journal
LA
     English
```

```
1-1 (Pharmacodynamics)
     In mice, stress-induced analgesia was significantly antagonized by
     naloxone [357-08-4] and was dose-dependently reduced by diazepam
     [439-14-5], chlordiazepoxide [58-25-3], flurazepam [17617-23-1], medazepam [2898-12-6], nitrazepam [146-22-5], estazolam [29975-16-4],
     phenobarbital [57-30-7], chlorpromazine [50-53-3], levomepromazine [60-99-1], haloperidol [52-86-8], and propranolol [3506-09-0].
     In contrast to psycholeptics morphine [52-26-6] substantially increased
     the threshold of nociceptive response in the post-stress session.
     Centrally acting muscle relaxants, tolperisone [728-88-1] and
     carisoprodol [78-44-4] had no substantial anti-stress effects.
     Apparently, the stress-induced analgesia is probably mediated through
     endogenous opioids in the central nervous system. The approach used in
     this study provides a simple method for assessing the anti-stress action
     of psycholeptics.
ST
     psycholeptic stress analgesia antagonism
     Stress, biological
IT
        (analgesia from, psychotropics antagonism of, method for evaluation of)
IT
     Analgesia
        (from stress, psychotropics antagonism of, method for evaluation of)
IT
     Psychotropics
        (stress analgesia antagonism by, method for evaluation of)
     50-53-3, biological studies
                                     52-26-6 52-86-8 57-30-7
TT
              58-46-8
                         60-99-1
                                     78-44-4 146-22-5 318-98-9
     58-25-3
                                       17617-23-1 29975-16-4
     439-14-5 728-88-1
                          2898-12-6
     RL: BIOL (Biological study)
        (stress analgesia antagonism by)
TT
     52-86-8
     RL: BIOL (Biological study)
        (stress analgesia antagonism by)
RN
     52-86-8 HCAPLUS
     1-Butanone, 4-[4-(4-chlorophenyl)-4-hydroxy-1-piperidinyl]-1-(4-
CN
     fluorophenyl) - (9CI) (CA INDEX NAME)
```



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L37 ANSWER 4 OF 5 HCAPLUS COPYRIGHT 2004 ACS on STN
     1980:525557 HCAPLUS
AN
DN
     93:125557
     Entered STN: 12 May 1984
ED
TI
     Behavioral changes following lesioning of the nucleus accumbens (ACB) and
     effects of centrally acting drugs in rats
     Miyamoto, Masaomi; Saji, Yoshiaki; Nagawa, Yuji
Cent. Res. Div., Takeda Chem. Ind. Ltd., Osaka, 532, Japan
Nippon Yakurigaku Zasshi (1980), 76(4), 227-38
ΑIJ
CS
SO
     CODEN: NYKZAU; ISSN: 0015-5691
DT
     Journal
LA
     Japanese
     1-5 (Pharmacodynamics)
CC
AB
     Rats with bilateral lesions of the nucleus accumbens showed locomotor
     hyperactivity and hyperemotionality. Muricidal behavior was also observed in
     about 40% of the lesioned rats. Hyperemotionality and muricidal behavior
     was observed for 2 to 3 days after the treatment, whereas locomotor
```

hyperactivity lasted for over 3 days. Hyperemotionality and muricidal behavior were both inhibited by the i.p. administration of chlorpromazine [50-53-3], haloperidol [52-86-8], diazepam [439-14-5], estazolam [29975-16-4], aminooxyacetic acid [645-88-5], and phenoxybenzamine [59-96-1]. Imipramine [50-49-7], atropine and L-5-hydroxytryptophan [4350-09-8] inhibited the muricidal behavior selectively. Destruction of the catecholaminergic system by the administration of 6-hydroxydopamine into bilateral nucleus accumbens caused only moderate hyperemotionality with no evidence of locomotor hyperactivity and muricide. ST drug behavior nucleus accumbens; brain drug behavior IT Emotion (from nucleus accumbens lesion, drugs effect on) IT Behavior (locomotor, from nucleus accumbens lesion, drugs effect on) IT Behavior (muricidal, from nucleus accumbens lesion, drugs effect on) IT Brain (nucleus accumbens, behavior response to drugs in relation to) 50-49-7 50-53-3, biological studies 51-55-8, biological studies 52-86-8 59-96-1 439-14-5 645-88-5 4350-09-8 29975-16-4 IT RL: BIOL (Biological study) (behavior response to, nucleus accumbens lesions in relation to) IT 52-86-8 RL: BIOL (Biological study) (behavior response to, nucleus accumbens lesions in relation to) RN52-86-8 HCAPLUS CN 1-Butanone, 4-[4-(4-chlorophenyl)-4-hydroxy-1-piperidinyl]-1-(4fluorophenyl) - (9CI) (CA INDEX NAME)



JP 51151336

JP 60047247

GB 1540574

L37 ANSWER 5 OF 5 HCAPLUS COPYRIGHT 2004 ACS on STN AN 1977:562090 HCAPLUS DN 87:162090 ED Entered STN: 12 May 1984 ΤI Pharmaceutical composition for treating schizophrenia Takeda Chemical Industries, Ltd., Japan PA Belg., 28 pp. CODEN: BEXXAL so DТ Patent French LΆ IC A61K CC 2-6 (Hormone Pharmacology) FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. BE 842106 A1 19761122 BE 1976-167243 FR 1976-15453 FR 2311553 19761217 A1 FR 2311553 В1 19791012

A2

B4

Α

19761225

19851021

19790214

JP 1976-59338

GB 1975-22706

DATE

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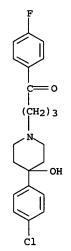
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CLASS
PATENT NO.
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BE 842106
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    Pharmaceutical prepns. in the form of tablets, capsules, or injection
     solns. containing thyrotropin-releasing factor tartrate salt [54974-54-8] and a
     neuroleptic phenothiazine, such as chlorpromazine [50-53-3], thiothixene
     [5591-45-7], or haloperidol [52-86-8] were effective, in clin.
     applications, fortreatment of schizophrenia. Thus, a patient with autism,
     abulia, facial rigidity, slowness of movement, and clumsiness showed
     complete recovery after less than a month of treatment with 4 \ensuremath{\text{mg}}
     thyrotropin-releasing factor tartrate + 50 mg thioridazine [50-52-2] + 6
     mg trihexyphenidyl [144-11-6]/day.
     schizophrenia thyrotropin releasing factor neuroleptic; tranquilizer
ST
     thyrotropin releasing factor schizophrenia
IT
     Tranquilizers and Neuroleptics
        (schizophrenia treatment with thyrotropin-releasing factor and)
IT
     Schizophrenia
        (thyrotropin-releasing factor and tranquilizers in treatment of)
               50-53-3, biological studies 52-86-8 144-11-6
IT
     50-52-2
     5591-45-7
     RL: BIOL (Biological study)
        (schizophrenia treatment with thyrotropin-releasing factor and)
IT
     54974-54-8
     RL: BIOL (Biological study)
        (schizophrenia treatment with tranquilizers and)
IT
     52-86-8
     RL: BIOL (Biological study)
        (schizophrenia treatment with thyrotropin-releasing factor and)
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     1-Butanone, 4-[4-(4-chlorophenyl)-4-hydroxy-1-piperidinyl]-1-(4-
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fluorophenyl) - (9CI) (CA INDEX NAME)



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L42 ANSWER 1 OF 19 HCAPLUS COPYRIGHT 2004 ACS on STN
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DN
     141:331803
     Entered STN: 18 Oct 2004
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     Preparation of sulfoxide and bis-sulfoxide compounds and compositions for
TI
     cholesterol management and related uses
IN
     Dasseux, Jean-Louis Henri; Oniciu, Daniela Carmen
PA
     USA
     U.S. Pat. Appl. Publ., 142 pp., Cont.-in-part of U.S. Ser. No. 976,899.
so
     CODEN: USXXCO
DT
     Patent
LΑ
     English
     ICM A61K031-10
IC
NCL 514708000; 568027000
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23-11 (Aliphatic Compounds)
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US 6673790
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US 2004122091 ECLA C07C317/18; C07F009/09A1; C07F009/24A1; C07F009/44A1<--
    Title compds. W1ZmSOGSOZmW2 (I) [wherein Z = independently CH2, CH:CH, or C6H4; m = independently 1-9; when Z = C6H4, m = 1; G = (CH2)x, CH2CH:CHCH2, CH:CH, CH2C6H4CH2, or C6H4; x = 2-4; W1 and W2 =
     independently CR1R2(CH2)nY, tetrahydro(oxo)pyranyl(oxy), oxooxetanyl,
     tetrahydrooxofuranyl, etc.; CR1R2(CH2)cCR3R4(CH2)nY, or CR1R2(CH2)cV; n =
     0-4; c = 1-2; R1 and R2 = independently alkyl, alkenyl, alkynyl, Ph, or
     benzyl; or when one or both of W1 and W2 = CR1R2(CH2)cCR3R4Y, then R1 and
     R2 can both be H; R3 = H, alkyl, alkenyl, alkynyl, alkoxy, Ph, benzyl, C1,
     Br, NO2, or CF3; R4 = OH, alkyl, alkenyl, alkoxy, Ph, benzyl, Cl, Br, CN, NO2, or CF3; Y = OH, CO2H, CHO, CO2R5, SO3H, mono-, di-, or triphosphate, dioxo- or dithioxohexahydrothieno[3,2-c]pyridinyl,
     sulfamoyl, tetrazolyl, hydroxyoxazolyl, hydroxypyranonyl, substituted
      imidazolidinedionyl, etc.; R5 = (un) substituted alkyl, alkenyl, alkynyl,
     Ph, or benzyl] were prepared as peroxisome proliferator activated receptor
      (PPAR) antagonists for treatment and prevention of cardiovascular
     diseases, dyslipidemias, dysproteinemias, and glucose metabolism disorders. I
     are also useful for treating and preventing Alzheimer's Disease, Syndrome
     X, PPAR-related disorders, septicemia, thrombotic disorders, obesity,
     pancreatitis, hypertension, renal disease, cancer inflammation, and impotence. For example, 6-(5,5-dimethyl-6-hydroxyhexylsulfanyl)-2,2-
     dimethylhexan-1-ol was oxidized to 6-(5,5-dimethyl-6-hydroxyhexane-1-
     sulfinyl)-2,2-dimethylhexan-1-ol (quant.) using H2O2 in glacial AcOH. The
     latter increased reduced serum triglycerides in female obese Zucker rats
     by 48% and 42% after 1 and 2 wk of treatment. Although non-HDL
     cholesterol increased by 38% and 62%, a marked increase in HDL cholesterol
     of 2.2-fold and 3.1-fold after one and two weeks of treatment, resp.,
     resulted in an unexpectedly beneficial increased ratio of HDL/non-HDL
     cholesterol from 2.70 (pretreatment) to 3.84 and 4.97. In certain
     embodiments, I may be administered in combination therapy with other
     therapeutics, such as hypocholesterolemic and hypoglycemic agents.
     alkyl sulfoxide prepn anticholesterol hypolipidemic antidiabetic
     antiobesity; sulfoxide alkyl prepn peroxisome proliferator activated
     receptor antagonist
     Fats and Glyceridic oils, biological studies
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
(animal, reduction in livestock; preparation of sulfoxide and bis-sulfoxide
         compds. as for cholesterol management and related uses)
IT
     Heart, disease
         (cardiac syndrome X, treatment; preparation of sulfoxide and bis-sulfoxide
         compds. as for cholesterol management and related uses)
TT
     Egg, poultry
         (cholesterol reduction; preparation of sulfoxide and bis-sulfoxide compds. as
         for cholesterol management and related uses)
     Lipids, biological studies
IT
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
         (dyslipidemia, treatment; preparation of sulfoxide and bis-sulfoxide compds.
         as for cholesterol management and related uses)
IT
     Lipoproteins
     RL: BSU (Biological study, unclassified); BIOL (Biological study) (dyslipoproteinemia, treatment; preparation of sulfoxide and bis-sulfoxide
         compds. as for cholesterol management and related uses)
IT
     Lipoproteins
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
         (high-d.; preparation of sulfoxide and bis-sulfoxide compds. as for
         cholesterol management and related uses)
ΙT
     Sexual behavior
         (impotence, treatment; preparation of sulfoxide and bis-sulfoxide compds. as
         for cholesterol management and related uses)
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TT
     Lipoproteins
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (low-d.; preparation of sulfoxide and bis-sulfoxide compds. as for
        cholesterol management and related uses)
TΤ
     Disease, animal
        (metabolic syndrome X, treatment; preparation of sulfoxide and bis-sulfoxide
        compds. as for cholesterol management and related uses)
IT
     Pancreas, disease
        (pancreatitis, treatment; preparation of sulfoxide and bis-sulfoxide compds.
        as for cholesterol management and related uses)
IT
     Anti-Alzheimer's agents
     Anti-inflammatory agents
     Anticholesteremic agents
     Anticoagulants
     Antihypertensives
     Antiobesity agents
     Antitumor agents
     Cardiovascular agents
     Human
     Hypolipemic agents
        (preparation of sulfoxide and bis-sulfoxide compds. as for cholesterol
        management and related uses)
TT
     Fatty acids, biological studies
     Glycerides, biological studies
     Peroxisome proliferator-activated receptors
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (preparation of sulfoxide and bis-sulfoxide compds. as for cholesterol
        management and related uses)
IT
    Kidney, disease
     Septicemia
        (treatment; preparation of sulfoxide and bis-sulfoxide compds. as for
        cholesterol management and related uses)
IT
    Lipoproteins
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (very-low-d.; preparation of sulfoxide and bis-sulfoxide compds. as for
        cholesterol management and related uses)
    50-99-7, Glucose, biological studies
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                                           57-88-5, Cholesterol, biological
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        management and related uses)
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L42
    ANSWER 2 OF 19 HCAPLUS COPYRIGHT 2004 ACS on STN
     2004:825133 HCAPLUS
AN
DN
     141:332051
ED
     Entered STN: 08 Oct 2004
     Preparation of substituted chromen-4-one oximes as inhibitors of protein
ΤI
     kinases
     Green, Jeremy; Aronov, Alex; Pierce, Albert C.
TN
PA
     U.S. Pat. Appl. Publ., 47 pp.
SO
     CODEN: USXXCO
DT
     Patent
LΑ
     English
     ICM C07D491-02
     ICS A61K031-519
NCL.
     514260100; 514302000; 514456000; 544279000; 546114000; 549403000
     27-14 (Heterocyclic Compounds (One Hetero Atom))
     Section cross-reference(s): 1, 63
FAN.CNT 1
     PATENT NO.
                                            APPLICATION NO.
                                                                    DATE
                         KIND
                                DATE
                         _ _ _ _
ΡI
     US 2004198750
                          A1
                                20041007
                                            US 2004-808678
                                                                    20040325 <--
     WO 2004092154
                          Al
                                20041028
                                            WO 2004-US9145
                                                                    20040325 <--
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
             LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
             NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
             TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN,
                                                             YU, ZA, ZM, ZW
         RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,
             BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE,
             ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,
             SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN,
             TD. TG
PRAI US 2003-460042P
                          P
                                20030403 <--
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CLASS PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES US 2004198750 ICM C07D491-02 ICS A61K031-519

NCL 514260100; 514302000; 514456000; 544279000; 546114000;

549403000

GI

The title compds. [I; R1 = LmR, LmAr1, LmCy1; L = S, O, NR, alkylidene wherein up to two non-adjacent methylene units of L are optionally replaced by S, O, CO, etc.; m = 0-1; Ar1 = (un)substituted 5-7 membered monocyclic or 8-10 membered bicyclic ring having 0-5 heteroatoms; Cy1 = (un) substituted 3-7 membered (un) saturated monocyclic ring having 0-3 heteroatoms or 8-10 membered (un)saturated bicyclic ring having 0-5 heteroatoms; R = H, alkyl; R2 = H, CN, SR, OR, etc.; T = N, CR3; A1-A3 = N, CR4; provided that no more than two of T, A1-A3 are N atom; R3 = H, halo, NO2, etc.; R4 = halo, NO2, CN, etc.; with provisos], useful as inhibitors of protein kinases, were prepared E.g., a 2-step synthesis of 2-(4-methoxyphenyl)-8-methylchromen-4-one oxime, starting from 8-methyl-4'-methoxyflavone, was given. The exemplified compds. I were tested and found to inhibit CDK-2, CMET, GSK-3, SYK, ZAP-70, FLT-3, JAK-3, p70S6K, TAK-1, and IRAK-4. The invention also provides pharmaceutically

Truong 09/960477 acceptable compns. comprising said compds. I and methods of using the compns. in the treatment of various disease, conditions, or disorders. chromenone oxime prepn inhibitor protein kinase CDK2 cMet GSK3; SYK ZAP70 FLT3 protein kinase inhibitor chromenone oxime prepn; JAK3 p70S6K TAK1 protein kinase inhibitor chromenone oxime prepn; IRAK4 protein kinase inhibitor chromenone oxime prepn AIDS (disease) (AIDS dementia complex, treating or lessening the severity of; preparation of substituted chromen-4-one oximes as inhibitors of protein kinases) Mental disorder (AIDS dementia, treating or lessening the severity of; preparation of substituted chromen-4-one oximes as inhibitors of protein kinases) IT Leukemia (B-cell, treating or lessening the severity of; preparation of substituted chromen-4-one oximes as inhibitors of protein kinases) IT Fusion proteins (chimeric proteins) RL: BSU (Biological study, unclassified); BIOL (Biological study) (FMS-like tyrosine kinase-3; preparation of substituted chromen-4-one oximes as inhibitors of protein kinases) Nervous system, disease
(Huntington's chorea, treating or lessening the severity of; preparation of TT substituted chromen-4-one oximes as inhibitors of protein kinases) (acute lymphocytic, treating or lessening the severity of; preparation of substituted chromen-4-one oximes as inhibitors of protein kinases) TT Leukemia substituted chromen-4-one oximes as inhibitors of protein kinases) IT Leukemia

(acute myelogenous, treating or lessening the severity of; preparation of

(acute promyelocytic, treating or lessening the severity of; preparation of substituted chromen-4-one oximes as inhibitors of protein kinases)

Blood, disease (agent for treating blood disorders as co-drug; preparation of substituted chromen-4-one oximes as inhibitors of protein kinases for use in combination with other therapeutic agents)

Immunodeficiency (agent for treating immunodeficiency disorders as co-drug; preparation of substituted chromen-4-one oximes as inhibitors of protein kinases for use in combination with other therapeutic agents)

Liver, disease (agent for treating liver disease as co-drug; preparation of substituted chromen-4-one oximes as inhibitors of protein kinases for use in

combination with other therapeutic agents) IT Nose, disease

(allergic rhinitis, treating or lessening the severity of; preparation of substituted chromen-4-one oximes as inhibitors of protein kinases) Antiarteriosclerotics

(antiatherosclerotics; preparation of substituted chromen-4-one oximes as inhibitors of protein kinases) Nose, disease

(atrophic rhinitis, treating or lessening the severity of; preparation of substituted chromen-4-one oximes as inhibitors of protein kinases) IT

(bipolar disorder, treating or lessening the severity of; preparation of substituted chromen-4-one oximes as inhibitors of protein kinases)

Bronchi, disease (bronchitis, treating or lessening the severity of; preparation of substituted chromen-4-one oximes as inhibitors of protein kinases)

IT Cytotoxic agents Immunosuppressants

IT

IT

IT

TT

TT

IT

IT

TΨ

IT

IT

(co-drug; preparation of substituted chromen-4-one oximes as inhibitors of protein kinases for use in combination with other therapeutic agents) Neurotrophic factors

RL: BSU (Biological study, unclassified); BIOL (Biological study) (co-drug; preparation of substituted chromen-4-one oximes as inhibitors of protein kinases for use in combination with other therapeutic agents)

Intestine, neoplasm (colon, treating or lessening the severity of; preparation of substituted chromen-4-one oximes as inhibitors of protein kinases)

Artery, disease (coronary, restenosis, treating or lessening the severity of; preparation of substituted chromen-4-one oximes as inhibitors of protein kinases) Nervous system, disease

(degeneration, treating or lessening the severity of; preparation of substituted chromen-4-one oximes as inhibitors of protein kinases) Metabolism, animal

(disorder, treating or lessening the severity of; preparation of substituted chromen-4-one oximes as inhibitors of protein kinases) TT Hematopoiesis (disorders, treating or lessening the severity of; preparation of substituted chromen-4-one oximes as inhibitors of protein kinases) IT Lung, disease (fibrosis, treating or lessening the severity of fibroid lung disease; preparation of substituted chromen-4-one oximes as inhibitors of protein kinases) TT Kidney, disease (glomerulonephritis, treating or lessening the severity of; preparation of substituted chromen-4-one oximes as inhibitors of protein kinases) ΙT Cytoprotective agents (hepatoprotective, agent for treating liver disease as co-drug; preparation of substituted chromen-4-one oximes as inhibitors of protein kinases for use in combination with other therapeutic agents) IT Heart, disease (hypertrophy, treating or lessening the severity of cardiomyocyte hypertrophy; preparation of substituted chromen-4-one oximes as inhibitors of protein kinases) IT Intestine, disease (inflammatory, treating or lessening the severity of; preparation of substituted chromen-4-one oximes as inhibitors of protein kinases) TT Pneumonia (interstitial, treating or lessening the severity of; preparation of substituted chromen-4-one oximes as inhibitors of protein kinases) IT Heart (myocyte, treating or lessening the severity of cardiomyocyte hypertrophy; preparation of substituted chromen-4-one oximes as inhibitors of protein kinases) TТ Mast cell (neoplasm, mastocytoma, treating or lessening the severity of; preparation of substituted chromen-4-one oximes as inhibitors of protein kinases) Angiogenesis inhibitors Anti-AIDS agents Anti-Alzheimer's agents Anti-inflammatory agents Anti-ischemic agents Antiasthmatics Antidiabetic agents Antiparkinsonian agents Antipsychotics Antirheumatic agents Antitumor agents Antiviral agents Cardiovascular agents Immunomodulators Nervous system agents (preparation of substituted chromen-4-one oximes as inhibitors of protein kinases) TΤ Tau factor RL: BSU (Biological study, unclassified); BIOL (Biological study) (preparation of substituted chromen-4-one oximes for inhibiting the phosphorylation of Tau protein) Bone (resorption, inhibitors, co-drug; preparation of substituted chromen-4-one oximes as inhibitors of protein kinases for use in combination with other therapeutic agents) IT Brain, disease (stroke, treating or lessening the severity of; preparation of substituted chromen-4-one oximes as inhibitors of protein kinases) ΙT Digestive tract, neoplasm (stroma, treating or lessening the severity of; preparation of substituted chromen-4-one oximes as inhibitors of protein kinases) Lung, disease IT (treating or lessening the severity of farmer's lung disease; preparation of substituted chromen-4-one oximes as inhibitors of protein kinases) IT Ischemia Reperfusion (treating or lessening the severity of reperfusion/ischemia; preparation of

Search done by Noble Jarrell

AIDS (disease)

Alzheimer's disease

Alopecia

IT

substituted chromen-4-one oximes as inhibitors of protein kinases)

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Angiogenesis
Asthma
Atherosclerosis
Autoimmune disease
Cardiovascular system, disease
Cytomegalovirus
Diabetes mellitus
Hav fever
Hepatitis B virus
Human herpesvirus
Human herpesvirus 3
Human herpesvirus 5
Human immunodeficiency virus
Inflammation
Kidney, neoplasm
Liver, neoplasm
Lung, neoplasm
Lymphoma
Mammary gland, neoplasm
Multiple sclerosis
Neoplasm
Nervous system, disease
Osteoporosis
Ovary, neoplasm
Pancreas, neoplasm
Parkinson's disease
Prostate gland, neoplasm
Psoriasis
Respiratory tract, disease
Rheumatoid arthritis
Sarcoidosis
Schizophrenia
Sepsis
Transplant rejection
   (treating or lessening the severity of; preparation of substituted
   chromen-4-one oximes as inhibitors of protein kinases)
Bone, disease
    (treating or lessening the severity of; preparation of substituted
   chromen-4-one oximes for inhibiting the phosphorylation of Tau protein)
Infection
   (viral, treating or lessening the severity of; preparation of substituted
   chromen-4-one oximes as inhibitors of protein kinases)
90698-26-3, p70S6K 137632-03-2 138674-26-7, SYK kinase 141349-86-
CDK-2 148047-34-1, ZAP-70 kinase 157482-36-5, JAK-3 protein kinase 229976-66-3, TAK-1 protein kinase 391208-93-8, GSK-3 kinase
428817-87-2, IRAK-4 protein kinase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
    (preparation of substituted chromen-4-one oximes as inhibitors of protein
   kinases)
              115663-23-5P 140885-79-6P 304691-31-4P 769948-79-0P 769948-80-3P 769948-81-4P
59835-92-6P
                                                               321976-78-7P
                                              769948-81-4P
769948-78-9P
                                                                769948-82-5P
                769948-84-7P
                                769948-85-8P
769948-83-6P
                                                769948-86-9P
                                                                769948-87-0P
769948-88-1P
                769948-89-2P
                               769948-90-5P
                                                769948-91-6P
                                                                769948-92-7P
                               769948-95-0P
769948-93-8P
                769948-94-9P
                                                769948-96-1P
                                                                769948-97-2P
769948-98-3P
                769948-99-4P
                                769949-00-0P
                                                769949-01-1P
                                                                769949-02-2P
769949-03-3P
                769949-04-4P
                                769949-06-6P
                                                769949-07-7P
                                                                769949-08-8P
769949-09-9P
                769949-10-2P
                                769949-11-3P
                                                769949-12-4P
                                                                769949-13-5P
769949-14-6P
                769949-15-7P
                                769949-16-8P
                                                769949-17-9P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
(Uses)
   (preparation of substituted chromen-4-one oximes as inhibitors of protein
   kinases)
109-70-6, 1-Bromo-3-chloropropane
                                     110-91-8, Morpholine, reactions
          487-24-1, 7-Hydroxy-4'-methoxyflavone
                                                     500-22-1,
394-32-1
Pyridine-3-carboxaldehyde 108980-48-9, 8-Methyl-4'-methoxyflavone
RL: RCT (Reactant); RACT (Reactant or reagent)
    (preparation of substituted chromen-4-one oximes as inhibitors of protein
   kinases)
320741-25-1P, 1-(5-Fluoro-2-hydroxyphenyl)-3-(pyridin-3-
                769949-18-0P, 2-(4-Methoxyphenyl)-8-methylchromene-4-thione
yl)propenone
769949-19-1P, 7-(3-Chloropropoxy)-2-(4-methoxyphenyl)chromen-4-one
769949-20-4P, 2-(4-Methoxyphenyl)-7-(3-(morpholin-4-yl)propoxy)chromen-4-
     769949-21-5P, 2-(4-Methoxyphenyl)-7-(3-(morpholin-4-
yl)propoxy)chromen-4-thione
                               769949-22-6P, 6-Fluoro-2-(pyridin-3-
                  769949-23-7P, 6-Fluoro-2-(pyridin-3-yl)chromen-4-thione
yl)chromen-4-one
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TT

IT

IT

TT

TТ

TT

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of substituted chromen-4-one oximes as inhibitors of protein kinases)

IT 320741-25-1P, 1-(5-Fluoro-2-hydroxyphenyl)-3-(pyridin-3-

yl)propenone

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of substituted chromen-4-one oximes as inhibitors of protein kinases)

RN 320741-25-1 HCAPLUS

CN 2-Propen-1-one, 1-(5-fluoro-2-hydroxyphenyl)-3-(3-pyridinyl)- (9CI) (CA INDEX NAME)

L42 ANSWER 3 OF 19 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2004:803933 HCAPLUS

DN 141:314017

ED Entered STN: 01 Oct 2004

TI Preparation of phenylacrylamides and phenylpropanamides as activators of soluble guanylate cyclase

IN Anderson, Steven N.; Bhatia, Pramila A.; Kolasa, Teodozyj; Nakane, Masaki; Patel, Meena V.; Rohde, Jeffrey J.; Zhiren, Xia; Zhang, Henry Qing-Wei

PA USA

SO U.S. Pat. Appl. Publ., 33 pp.

CODEN: USXXCO

DT Patent

LA English

IC ICM C07D417-02

ICS C07D413-02; C07D043-02

NCL 514227200; 514235200; 514318000; 514217040; 514183000; 514343000;

514253010; 544060000; 544124000; 544360000

CC 25-19 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)

Section cross-reference(s): 1, 63

FAN.CNT 1

F	PATENT NO.		KIND	DATE	APPLICATION N	o. I	DATE	
-								
PI U	JS 200419268	30	A1	20040930	US 2003-73939	1 2	20031218	<
PRAI U	JS 2002-435	L45P	P	20021220	<			
CLASS								
PATEN	T NO.	CLASS	PATENT	FAMILY CLA	SSIFICATION CODE	S		
US 20	04192680	ICM	C07D417	7-02				
		ICS	C07D413	3-02; C07D0	43-02			
		NCL	5142272	200; 514235	200; 514318000;	514217040;	51418300	0;

GI

$$\mathbb{R}^{1}$$
 \mathbb{R}^{2}
 \mathbb{R}^{3}
 \mathbb{R}^{4}
 \mathbb{R}^{3}
 \mathbb{R}^{4}
 \mathbb{R}^{1}
 \mathbb{R}^{2}
 \mathbb{R}^{3}
 \mathbb{R}^{4}
 \mathbb{R}^{3}

AB Title compds. I [wherein X = C, N; R1 = (NR7R8)carbonylalkyl, (NR7R8)carbonylalkenyl; R2 = (cyclo)alkoxy, (cyclo)alkylthio, aryloxy, arylthio; with proviso; R3 = absent or H, alkenyl, alkoxy(carbonyl), alkyl(carbonyl), alkylthio, carboxy, CN, haloalkoxy, haloalkyl, halo,

514343000; 514253010; 544060000; 544124000; 544360000

Truong 09/960477 hydroxy(alkyl), mercapto(alkyl), NO2, NR9R10(carbonyl); R4-R6 = independently H, alkenyl, alkoxy(carbonyl), alkyl(carbonyl), alkylthio,
carboxy, CN, haloalkoxy, haloalkyl, halo, hydroxy(alkyl), mercapto(alkyl), NO2, NR9R10(carbonyl); R7 and R8= independently H, (hydroxy)alkyl, aryl(alkyl), cycloalkyl(alkyl), heterocyclyl(alkyl), (NHR11)alkyl; or NR7R8 = (un) substituted heterocyclyl; R9 and R10 = independently H, alkyl; R11 = H, alkoxy, alkyl(sulfonyl); and pharmaceutically acceptable salts, esters, amides, or prodrugs thereof) were prepared as soluble guanylate cyclase (sGC) activators for increasing cGMP levels in a mammal. For example, (diethoxyphosphoryl)acetic acid was combined with dicyclohexylcarbodiimide, N'-methylpolystyrene, and HOBt in DMA/DCM and treated with 4-aminocyclohexanol to give 2-[(4-hydroxycyclohexyl)amino]-2oxoethylphosphonate. Reaction of the phosphonate with 2-(cyclohexylthio)benzaldehyde provided the acrylamide (E)-II. In a guanylate cyclase assay measuring the formation of cyclic GMP from GTP, the latter exhibited a mean basal efficacy of 353% at 100 .mu.M, a mean efficacy of 506% when combined with 1 .mu.M of sodium nitro prusside (SNP), and a mean activation of 7.9 at 100 .mu.M. Results of the GC assay show that compds. of the invention potentiate the activation of sGC by nitric oxide (NO), resulting in increased levels of cGMP. Thus, I and their pharmaceutical compns. are useful for treating disorders ameliorated by increasing cGMP levels, such as sexual dysfunction, angina pectoris, diastolic dysfunction, benign prostatic hyperplasia (BPH), incontinence, endothelial dysfunction, thrombosis, diabetes, liver cirrhosis, cognitive disorders, Alzheimer's disease, anxiety, stress, depression, sleep disorders, migraine, cerebral ischemia, brain trauma, pain, and memory and learning disorders (no data). phenyl acrylamide propanamide prepn guanylate cyclase activator; phenylacrylamide phenylpropanamide prepn sGC activator sexual dysfunction treatment; cardiovascular antithrombotic antidiabetic CNS agent phenylacrylamide phenylpropanamide prepn Proteins RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (GCAP (guanylate cyclase-activating protein); preparation of phenylacrylamides and phenylpropanamides as activators of sGC for treatment of disorders ameliorated by increasing cGMP levels) Heart, disease (angina pectoris; preparation of phenylacrylamides and phenylpropanamides as activators of sGC for treatment of disorders ameliorated by increasing cGMP levels) Antiarteriosclerotics (antiatherosclerotics; preparation of phenylacrylamides and phenylpropanamides as activators of sGC for treatment of disorders ameliorated by increasing cGMP levels)

IT

IT

TT Prostate gland, disease

(benign hyperplasia; preparation of phenylacrylamides and phenylpropanamides as activators of sGC for treatment of disorders ameliorated by increasing cGMP levels)

IT Mental disorder

> (cognitive; preparation of phenylacrylamides and phenylpropanamides as activators of sGC for treatment of disorders ameliorated by increasing cGMP levels)

TТ Adrenoceptor antagonists

Dopamine agonists

(combination therapy; preparation of phenylacrylamides and phenylpropanamides as activators of sGC for treatment of disorders ameliorated by increasing cGMP levels)

IT Mental disorder

(depression; preparation of phenylacrylamides and phenylpropanamides as activators of sGC for treatment of disorders ameliorated by increasing cGMP levels)

TΤ Blood pressure

(diastolic, dysfunction; preparation of phenylacrylamides and phenylpropanamides as activators of sGC for treatment of disorders ameliorated by increasing cGMP levels)

TΤ Cognition

Learning

Memory, biological Sexual behavior

Sleep

(disorder; preparation of phenylacrylamides and phenylpropanamides as activators of sGC for treatment of disorders ameliorated by increasing cGMP levels)

IT Blood vessel, disease

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(endothelium; preparation of phenylacrylamides and phenylpropanamides as
         activators of sGC for treatment of disorders ameliorated by increasing
        cGMP levels)
IT
     Sexual behavior
         (impotence; preparation of phenylacrylamides and phenylpropanamides as
         activators of sGC for treatment of disorders ameliorated by increasing
        cGMP levels)
TT
     Bladder, disease
         (incontinence; preparation of phenylacrylamides and
        phenylpropanamides as activators of sGC for treatment of disorders
        ameliorated by increasing cGMP levels)
IT
     Brain, disease
         (ischemia; preparation of phenylacrylamides and phenylpropanamides as
         activators of sGC for treatment of disorders ameliorated by increasing
        cGMP levels)
TT
     Headache
         (migraine; preparation of phenylacrylamides and phenylpropanamides as
        activators of sGC for treatment of disorders ameliorated by increasing
        cGMP levels)
     Alzheimer's disease
     Analgesics
     Anti-Alzheimer's agents
     Anti-ischemic agents
     Antianginal agents
     Anticoagulants
     Antidepressants
     Antidiabetic agents
     Antimigraine agents
     Anxiety
     Anxiolytics
     Atherosclerosis
     Cardiovascular agents
     Cardiovascular system, disease
     Cirrhosis
     Cognition enhancers
     Diabetes mellitus
     Drug delivery systems
     Human
     Hypnotics and Sedatives
     Pain
     Stress, biological
     Thrombolytics
     Thrombosis
         (preparation of phenylacrylamides and phenylpropanamides as activators of
        sGC for treatment of disorders ameliorated by increasing cGMP levels)
IT
     Drug delivery systems
         (prodrugs; preparation of phenylacrylamides and phenylpropanamides as
        activators of sGC for treatment of disorders ameliorated by increasing
        cGMP levels)
IT
     Brain, disease
        (trauma; preparation of phenylacrylamides and phenylpropanamides as
        activators of sGC for treatment of disorders ameliorated by increasing
        cGMP levels)
     9068-52-4, Phosphodiesterase 5
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (inhibitors, combination therapy; preparation of phenylacrylamides and
        phenylpropanamides as activators of sGC for treatment of disorders
        ameliorated by increasing cGMP levels)
     955-63-5P, 2-[(4-Chlorophenyl)thio]-6-methylnicotinonitrile
1-[2-[(4-Chlorophenyl)thio]phenyl]ethanone 62351-50-2P,
     2-[(4-Methylphenyl)thio]benzaldehyde 74801-39-1P, 3-[2-[(4-
     Chlorophenyl)thio]phenyl]propanoic acid
                                                 280752-46-7P.
     2-[(2,4-Dichlorophenyl)thio]benzaldehyde
                                                  280752-47-8P
     (2E) -3-[2-[(2,4-Dichlorophenyl)thio]phenyl]-2-propenoic acid
     710959-93-6P, Ethyl 3-[2-[(4-chlorophenyl)thio]phenyl]acrylate
     710959-95-8P, Methyl 3-[2-[(4-chlorophenyl)thio]phenyl]propanoate
     710960-09-1P, 2-[(4-Chlorophenyl)thio]-3-fluorobenzaldehyde
710960-13-7P, 2-[(4-Chlorophenyl)thio]-5-fluorobenzaldehyde
     710960-17-1P, 3-[2-[(4-Chlorophenyl)thio]phenyl]acrylic acid
     710960-19-3P, 1-[3-[2-[(4-Chlorophenyl)thio]phenyl]-2-propenoyl]-2-
                     710960-21-7P, 3-[2-[(4-Chlorophenyl)thio]phenyl]-N-(4-2-propenamide 710960-26-2P, Ethyl 3-[2-[(4-
     pyrrolidinone
     hydroxypentyl)-2-propenamide
     chlorophenyl)thio]phenyl]-2-butenoate
                                               710960-28-4P, (E)-3-[2-[(4-
     Chlorophenyl)thio|phenyl]-2-butenoate
                                               710960-30-8P, (Z)-3-[2-[(4-
     Chlorophenyl)thio]phenyl]-2-butenoate
                                               710960-32-0P, 3-[2-[(4-
     Chlorophenyl)thio]phenyl]-2-butenoic acid
                                                  710960-34-2P,
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3-[2-[(4-Chlorophenyl)thio]phenyl]-N-methyl-N-(1-methyl-4-piperidinyl)-2-
                   710960-45-5P 710960-74-0P, 2-[(4-Chlorophenyl)thio]-6-
     butenamide
     methylnicotinaldehyde 710960-78-4P, Ethyl (2E)-3-[2-[(2,4-
                                                    710961-05-0P,
     dichlorophenyl)thio]phenyl]-2-propenoate
     2-[(4-Chlorophenyl)thio]-6-fluorobenzaldehyde 710961-10-7P,
     3-(2-Bromophenyl)-N-(4-hydroxybutyl)-2-propenamide 710961-37-8P,
     2-[(2,4-Dimethylphenyl)thio]benzaldehyde
                                                     710961-42-5P,
     2-[(3-Methylbutyl)thio]benzaldehyde 710961-44-7P, (2E)-3-[2-[(3-
     Methylbutyl)thio]phenyl]-2-propenoic acid
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
      (Reactant or reagent)
         (intermediate, preparation of phenylacrylamides and phenylpropanamides as
         activators of sGC for treatment of disorders ameliorated by increasing
         cGMP levels)
     86-01-1, GTP 7665-99-8, CGMP 9054-75-5, 010102-43-9, Nitric oxide, biological studies
TТ
                                         9054-75-5, Guanylate cyclase
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
         (preparation of phenylacrylamides and phenylpropanamides as activators of
         sGC for treatment of disorders ameliorated by increasing cGMP levels)
IT
     78-96-6, 1-Amino-2-propanol 106-45-6, 4-Methylbenzenethiol
                                                                          106-54-7,
     4-Chlorobenzenethiol 109-73-9, 1-Butanamine, reactions 156-87-6,
     3-Amino-1-propanol 372-66-7, 6-Amino-2-methyl-2-heptanol 437-81-0,
     2,6-Difluorobenzaldehyde 446-52-6, 2-Fluorobenzaldehyde 541-3-Methyl-1-butanethiol 552-89-6, 2-Nitrobenzaldehyde 614-21-1,
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Triethyl phosphonoacetate 1122-41-4, 2,4-Dichlorobenzenethiol
     2508-29-4, 5-Amino-1-pentanol 2646-90-4, 2,5-Difluorobenzaldehyde
     2646-91-5, 2,3-Difluorobenzaldehyde 3095-95-2,
     (Diethoxyphosphoryl)acetic acid 5382-16-1, 4-Piperidinol 6850
2-Aminocyclohexanol 6850-65-3, 4-Aminocyclohexanol 6859-99-0,
     3-Piperidinol 7345-79-1, (2E)-3-(2-Bromophenyl)-2-propenoic acid
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     2-(Phenylthio) benzaldehyde 39546-32-2, 4-Piperidinecarboxamide 39884-48-5, 4-Amino-2-butanol 53606-32-9, 2-(Isopropylthio) benzaldehyde
     73579-08-5, 1-Methyl-4-(methylamino)piperidine 90133-56-5,
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                                          128958-85-0, 2-[(4-
319454-93-8, 5-Methoxy-2-[(4-
     Methoxyphenyl)thio]benzaldehyde
     Methoxyphenyl)thio]benzaldehyde
     methylphenyl)thio]benzaldehyde
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338982-29-9, 2-[(2,4-
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     Chlorophenyl)thio]nicotinaldehyde
     Dichlorophenyl)thio]nicotinaldehyde
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     (Phenylthio) nicotinaldehyde 338982-32-4, 2-[(2-
     Chlorophenyl)thio]nicotinaldehyde 503065-08-5, 2-
      (Cyclohexylthio) benzaldehyde 643763-14-8, 2-[(4-
     Fluorophenyl)thio]benzaldehyde 643763-25-1, 2-
                                        643763-27-3, 2-(Isobutylthio)benzaldehyde
      (Cyclopentylthio) benzaldehyde
     710960-62-6 710960-70-6, 2-(Pentylthio) benzaldehyde
RL: RCT (Reactant); RACT (Reactant or reagent)
         (preparation of phenylacrylamides and phenylpropanamides as activators of
         sGC for treatment of disorders ameliorated by increasing cGMP levels)
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IT
     RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic
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      (Preparation); RACT (Reactant or reagent); USES (Uses)
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     710959-91-4P, 3-[2-[(4-Chlorophenyl)thio]phenyl]-N-(4-
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     3-[2-[(4-Chlorophenyl)thio]-3-fluorophenyl]-N-(4-hydroxybutyl)propanamide
     710960-11-5P, 3-[2-[(4-Chlorophenyl)thio]-5-fluorophenyl]-N-(4-hydroxybutyl)propanamide 710960-15-9P, 3-[2-[(4-
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3-[2-[(4-Chlorophenyl)thio]phenyl]-N-methyl-N-(1-methyl-4-
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     141:295863
     Entered STN: 24 Sep 2004
     Preparation of N-(piperidinylalkyl)benzenealkanamides as selective MCH1
     receptor antagonists for treatment of obesity and other conditions
     Marzabadi, Mohammad R.; Wetzel, John M.; Chen, Chien-An; Jiang, Yu; Lu,
     Synaptic Pharmaceutical Corporation, USA
     U.S. Pat. Appl. Publ., 87 pp., Cont.-in-part of U.S. Pat. Appl. 2004
     73,036.
     CODEN: USXXCO
     Patent
     English
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     ICS A61K031-506; A61K031-497; C07D043-04
     514241000; 514253030; 514255050; 514275000; 514318000; 544209000;
     544238000; 544405000; 544331000; 546194000
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     27-16 (Heterocyclic Compounds (One Hetero Atom))
     Section cross-reference(s): 1, 63
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AB Title compds. I [wherein R1 = independently H, halo, CN, NO2, (cyclo)alkyl, (cyclo)alkenyl, (hetero)aryl, amino, acyl, carbamoyl, etc.; R2, R3 = independently H, halo, CN, NH2, (un)substituted alkyl, (hetero)aryl; R4 = (cyclo)alkyl, amino, etc.; R5 = independently H, (un)substituted (hetero)aryl, alkyl; R6 = independently H, alkyl; R7 = independently H, alkyl, phenyl(alkyl); n = 1-5; q = 0-2; X = independently CR1, N, provided that if one X = N, then the remaining X = CR1; or

Ι

II

pharmaceutically acceptable salts thereof] were prepared as selective antagonists for melanin-concentrating hormone-1 (MCH1) receptors. For example, amidation of bis(4-fluorophenyl)acetic acid with N-[3-[1-(3-aminopropyl)-4-piperidinyl]phenyl]-2-methylpropanamide gave II. The latter showed binding affinity (Ki = 1.3 nM) in a radioligand binding assay using cloned rat MCH1 and produced an increase in bladder capacity in rats relative to baseline capacity in a continuous slow transvesicular infusion model assay. Thus, I and pharmaceutical composition comprising I are useful for the treatment of obesity, depression, anxiety, and other affective, urinary, or eating disorders.

ST piperidinylalkyl benzenealkanamide prepn MCH1 receptor antagonist antiobesity antidepressant

IT G protein-coupled receptors

RL: BSU (Biological study, unclassified); BIOL (Biological study)
(MCH-1R (melanin concentrating hormone receptor 1); preparation of
N-(piperidinylalkyl)benzenealkanamides as MCH1 receptor antagonists for
treatment of obesity and other conditions)

IT Mental disorder

(affective; preparation of N-(piperidinylalkyl)benzenealkanamides as MCH1 receptor antagonists for treatment of obesity and other conditions)

IT Mental disorder

(agoraphobia; preparation of N-(piperidinylalkyl)benzenealkanamides as MCH1 receptor antagonists for treatment of obesity and other conditions) ${\sf MCH1}$

IT Appetite

(anorexia nervosa; preparation of N-(piperidinylalkyl)benzenealkanamides as MCH1 receptor antagonists for treatment of obesity and other conditions)

IT Mental disorder

(bipolar disorder; preparation of N-(piperidinylalkyl)benzenealkanamides as MCH1 receptor antagonists for treatment of obesity and other conditions)

IT Appetite

(bulimia; preparation of N-(piperidinylalkyl)benzenealkanamides as MCH1 receptor antagonists for treatment of obesity and other conditions)

TT Montal disorder

(depression; preparation of N-(piperidinylalkyl)benzenealkanamides as MCH1 receptor antagonists for treatment of obesity and other conditions)

IT Appetite

(disorder; preparation of N-(piperidinylalkyl)benzenealkanamides as MCH1 receptor antagonists for treatment of obesity and other conditions)

IT Urinary tract, disease

(enuresis; preparation of N-(piperidinylalkyl)benzenealkanamides
as MCH1 receptor antagonists for treatment of obesity and other
conditions)

IT Bladder, disease

(incontinence; preparation of N-(piperidinylalkyl)benzenealkanamid es as MCH1 receptor antagonists for treatment of obesity and other conditions)

IT Mental disorder

(major depression; preparation of N-(piperidinylalkyl)benzenealkanamides as MCH1 receptor antagonists for treatment of obesity and other conditions)

IT Urinary tract, disease

(nocturia; preparation of N-(piperidinylalkyl)benzenealkanamides as MCH1 receptor antagonists for treatment of obesity and other conditions)

IT Mental disorder

(obsession-compulsion; preparation of N-(piperidinylalkyl)benzenealkanamides as MCH1 receptor antagonists for treatment of obesity and other conditions)

IT Drug delivery systems

(oral; preparation of N-(piperidinylalkyl)benzenealkanamides as MCH1 receptor antagonists for treatment of obesity and other conditions)

IT Mental disorder

(phobia; preparation of N-(piperidinylalkyl)benzenealkanamides as MCH1 receptor antagonists for treatment of obesity and other conditions)

IT Mental disorder

(post-traumatic stress disorder; preparation of N-(piperidinylalkyl)benzenealkanamides as MCH1 receptor antagonists for treatment of obesity and other conditions)

IT Antidepressants

Antiobesity agents Anxiety Anxiolytics Appetite depressants Drug delivery systems Human

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Obesity
         Urinary tract, disease
          (preparation of N-(piperidinylalkyl)benzenealkanamides as MCH1 receptor
          antagonists for treatment of obesity and other conditions)
IT
          (social; preparation of N-(piperidinylalkyl)benzenealkanamides as MCH1
          receptor antagonists for treatment of obesity and other conditions)
TΨ
      Urinary tract, disease
          (urinary frequency; preparation of N-
          (piperidinylalkyl) benzenealkanamides as MCH1 receptor antagonists for
          treatment of obesity and other conditions)
      762297-70-1P, N-[3-[4-[3-(Isobutyrylamino)phenyl]-1-piperidinyl]propyl]-2,2-diphenylpropanamide 762297-71-2P, 2-(4-Chlorophenyl)-2-methyl-N-[3-
TΤ
      [4-[3-(propionylamino)phenyl]-1-piperidinyl]propyl]propanamide
      762297-87-0P, N-[4-[1-[3-((Diphenylacetyl)amino)propyl]-4-piperidinyl]phenyl]-2-methylpropanamide 762297-89-2P 762297-91-6P,
      Benzyl [3-[1-[3-[(diphenylacetyl)amino]propyl]-4-
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      RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic
      preparation); THU (Therapeutic use); BIOL (Biological study); PREP
      (Preparation); RACT (Reactant or reagent); USES (Uses)
          (MCH1 receptor antagonist; preparation of N-(piperidinylalkyl)benzenealkanam
          ides as MCH1 receptor antagonists for treatment of obesity and other
          conditions)
      762298-15-7P, N-[3-[1-[3-[[Bis(4-fluorophenyl)acetyl]amino]propyl]-4-
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                                               762298-24-8P, N-[3-[4-[3-
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      methylpropanamide
      ]-4-piperidinyl]phenyl]cyclopropanecarboxamide
                                                                    762298-31-7P,
      N-[3-[1-[3-[(Diphenylacetyl)amino]propyl]-4-piperidinyl]phenyl]-2,2-
      dimethylpropanamide
                                 762298-32-8P, N-[3-[1-[3-
      [(Diphenylacetyl)amino]propyl]-4-piperidinyl]phenyl]-3,3-dimethylbutanamide hydrochloride 762298-33-9P, N-[3-[1-[3-
      [(Diphenylacetyl)amino]propyl]-4-piperidinyl]-4-methoxyphenyl]-2-
      methylpropanamide 762298-34-0P, N-[3-[1-[3-[(2,2-Bis(4-fluorophenyl)acetyl]amino]propyl]-4-piperidinyl]phenyl]propanamide
      762298-35-1P, N-[3-[1-[3-[(Diphenylacetyl)amino]propyl]-4-piperidinyl]-4-methoxyphenyl]butanamide 762298-36-2P, N-[3-[1-[3-[[Bis(4-
                                        762298-36-2P, N-[3-[1-[3-[[Bis(4-
      fluorophenyl)acetyl]amino]propyl]-4-piperidinyl]-4-methoxyphenyl]-2-
      methylpropanamide 762298-37-3P, N-[3-[1-[3-[(Diphenylacetyl)amino]propyl]-4-piperidinyl]-4-fluorophenyl]-2-methylpropanamide 762298-38-4P,
      N-[3-[1-[3-[(Diphenylacetyl)amino]propyl]-4-piperidinyl]-4-
      fluorophenyl]butanamide
                                      762298-40-8P, N-[3-[1-[3-[[Bis(4-
      fluorophenyl)acetyl]amino]propyl]-4-piperidinyl]-4-methoxyphenyl]butanamide 762298-41-9P, N-[3-[1-[3-[[2,2-Bis(4-
      fluorophenyl)acetyl]amino]propyl]-4-piperidinyl]phenyl]butanamide
      762298-42-0P, N-[3-[4-[3-(Acetylamino)phenyl]-1-piperidinyl]propyl]-2,2-
      bis(4-fluorophenyl)acetamide
                                             762298-43-1P, N-[6-[1-[3-[[Bis(4-
      fluorophenyl)acetyl]amino]propyl] 4-piperidinyl]-2-pyridinyl]-2-methylpropanamide 762298-44-2P, 1-(4-Chlorophenyl)-N-[3-[4-[3-(isobutyrylamino)phenyl]-1-piperidinyl]propyl]cyclopentanecarboxamide
      762298-45-3P, N-[3-[1-[3-[[Bis(4-fluorophenyl)acetyl]amino]propyl]-4-piperidinyl]-4-methylphenyl]-2-methylpropanamide 762298-46-4P,
      N-[3-[1-[3-[(Diphenylacetyl)amino]propyl]-4-piperidinyl]-2-methylphenyl]-2-
      methylpropanamide 762298-48-6P, N-[3-[1-[3-[[Bis(4-methylphenyl)acetyl]amino]propyl]-4-piperidinyl]phenyl]-2-
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methylpropanamide
                     762298-49-7P, N-[3-[1-[3-[[Bis(4-
fluorophenyl)acetyl]amino]propyl]-4-piperidinyl]-4-fluorophenyl]-2-
methylpropanamide 762298-50-0P, 1-(4-Fluorophenyl)-N-[3-[4-[3-(isobutyrylamino)phenyl]-1-piperidinyl]propyl]cyclopentanecarboxamide
762298-51-1P, 2-(4-Chlorophenyl)-N-[3-[4-[3-(isobutyrylamino)phenyl]-1-
piperidinyl]propyl]propanamide
                                  762298-52-2P, 1-(2-Chloro-4-fluorophenyl)-
N-[3-[4-[3-(isobutyrylamino)phenyl]-1-piperidinyl]propyl]cyclopentanecarbo
xamide 762298-53-3P, N-[3-[1-[3-[[(3,4-Dichlorophenyl) (methoxy) acetyl] am
ino]propyl]-4-piperidinyl]phenyl]-2-methylpropanamide
                                                          762298-54-4P,
1-(4-Fluorophenyl)-N-[3-[4-[3-(isobutyrylamino)phenyl]-1-
piperidinyl]propyl]cyclohexanecarboxamide
                                             762298-55-5P,
1-(2,4-Dichlorophenyl)-N-[3-[4-[3-(isobutyrylamino)phenyl]-1-
piperidinyl]propyl]cyclopropanecarboxamide
                                              762298-56-6P.
2-(4-Fluorophenyl)-N-[3-[4-[3-(isobutyrylamino)phenyl]-1-
                                  762298-57-7P, 1-(4-Chlorophenyl)-N-[3-[4-
piperidinyl]propyl]propanamide
[3-(isobutyrylamino)phenyl]-1-piperidinyl]propyl]cyclobutanecarboxamide
762298-58-8P, 1-(4-Chlorophenyl)-N-[3-[4-[3-(isobutyrylamino)phenyl]-1-
piperidinyl]propyl]cyclopropanecarboxamide
                                              762298-59-9P,
1-(4-Chlorophenyl)-N-[3-[4-[3-(isobutyrylamino)phenyl]-1-
                                              762298-60-2P,
piperidinyl]propyl]cyclohexanecarboxamide
N-[3-[4-[4-Fluoro-3-(isobutyrylamino)phenyl]-1-piperidinyl]propyl]-2-(4-
fluorophenyl)propanamide
                            762298-61-3P, 1-(4-Chlorophenyl)-N-[3-[4-[4-
fluoro-3-(isobutyrylamino)phenyl]-1-piperidinyl]propyl]cyclopropanecarboxa
                     762298-62-4P, N-[5-[1-[3-[[Bis(4-
mide hydrochloride
fluorophenyl)acetyl]amino]propyl]-4-piperidinyl]-2-fluorophenyl]-2-
methylpropanamide
                    762298-63-5P, 2-(4-Chlorophenyl)-N-[3-[4-[4-fluoro-3-
(isobutyrylamino)phenyl]-1-piperidinyl]propyl]-2-methylpropanamide
762298-64-6P, N-[6-[1-[3-[[Bis(4-chlorophenyl)acetyl]amino]propyl]-4-
piperidinyl]-2-pyridinyl]-2-methylpropanamide
                                                 762298-65-7P.
N-[3-[4-[4-Fluoro-3-(isobutyrylamino)phenyl]-1-piperidinyl]propyl]-2,2-
diphenylpropanamide hydrochloride
                                    762298-66-8P, N-[3-[1-[3-[Bis(4-
chlorophenyl)acetyl]amino]propyl]-4-piperidinyl]-4-Methylphenyl]-2-
methylpropanamide 762298-67-9P, N-[3-[1-[3-[[2,2-Bis(4-chlorophenyl)acetyl]amino]propyl]-4-piperidinyl]phenyl]butanamide
762298-68-0P, N-[3-[1-[3-[[Bis(4-chlorophenyl)acetyl]amino]propyl]-4-
piperidinyl]-4-fluorophenyl]-2-methylpropanamide
                                                     762298-69-1P,
N-[3-[4-[3-(Acetylamino)phenyl]-1-piperidinyl]propyl]-2,2-bis(4-
                          762298-70-4P, N-[5-[1-[3-
chlorophenyl)acetamide
[(Diphenylacetyl)amino]propyl]-4-piperidinyl]-2-fluorophenyl]-2-
methylpropanamide hydrochloride 762298-71-5P, N-[3-[1-[3-[[2,2-Bis(4-
chlorophenyl)acetyl]amino]propyl]-4-piperidinyl]phenyl]propanamide
762298-72-6P, 1-(4-Chlorophenyl)-N-[3-[4-[3-(propionylamino)phenyl]-1-
piperidinyl]propyl]cyclobutanecarboxamide
                                             762298-73-7P,
2-Methyl-N-[3-[1-[3-[(triphenylacetyl)amino]propyl]-4-
piperidinyl]phenyl]propanamide 762298-74-8P, 1-(4-Fluorophenyl)-N-[3-[4-
[3-(propionylamino)phenyl]-1-piperidinyl]propyl]cyclopentanecarboxamide
762298-75-9P, 1-(4-Fluorophenyl)-N-[3-[4-[3-(propionylamino)phenyl]-1-
piperidinyl]propyl]cyclohexanecarboxamide
                                            762298-76-0P,
1-(4-Chlorophenyl)-N-[3-[4-[3-(propionylamino)phenyl]-1-
piperidinyl]propyl]cyclopentanecarboxamide
                                               762298-77-1P.
1-(4-Chlorophenyl)-N-[3-[4-[3-(propionylamino)phenyl]-1-
piperidinyl]propyl]cyclopropanecarboxamide
                                               762298-78-2P,
2-(4-Fluorophenyl)-N-[3-[4-[3-(propionylamino)phenyl]-1-
                                  762298-79-3P, N-[5-[1-[3-
piperidinyl]propyl]propanamide
[(Diphenylacetyl)amino]propyl]-4-piperidinyl]-2-fluorophenyl]butanamide
hydrochloride
                762298-80-6P, 1-(4-Fluorophenyl)-N-[3-[4-[6-
(isobutyrylamino) -2-pyridinyl] -1-piperidinyl] propyl] cyclopentanecarboxamid
    762298-81-7P, 1-(4-Chlorophenyl)-N-[3-[4-[6-(isobutyrylamino)-2-
pyridinyl]-1-piperidinyl]propyl]cyclohexanecarboxamide
                                                           762298-82-8P,
1-(4-Fluorophenyl)-N-[3-[4-[6-(isobutyrylamino)-2-pyridinyl]-1-
piperidinyl]propyl]cyclohexanecarboxamide
                                             762298-83-9P,
N-[3-[4-[3-(Butyrylamino)phenyl]-1-piperidinyl]propyl]-1-(4-
                                       762298-84-0P, N-[3-[4-[3-
chlorophenyl)cyclopropanecarboxamide
(Acetylamino)phenyl]-1-piperidinyl]propyl]-1-(4-
fluorophenyl)cyclohexanecarboxamide
                                       762298-85-1P, N-[3-[4-[3-
(Acetylamino)phenyl]-1-piperidinyl]propyl]-1-(4-
chlorophenyl)cyclopropanecarboxamide
                                        762298-86-2P, N-[3-[4-[3-
(Acetylamino) phenyl] -1-piperidinyl] propyl] -1-(4-
fluorophenyl)cyclopentanecarboxamide
                                        762298-87-3P, 1-(4-Chlorophenyl)-N-
[3-[4-[6-(isobutyrylamino)-2-pyridinyl]-1-piperidinyl]propyl]cyclobutaneca
            762298-89-5P, N-[3-[4-[3-(Acetylamino)phenyl]-1-
piperidinyl]propyl]-1-(4-chlorophenyl)cyclobutanecarboxamide
762298-90-8P, N-[3-[4-[3-(Acetylamino)phenyl]-1-piperidinyl]propyl]-1-(4-
chlorophenyl)cyclohexanecarboxamide 762298-91-9P, 1-(4-Chlorophenyl)-N-
[3-[4-[6-(isobutyrylamino)-2-pyridinyl]-1-piperidinyl]propyl]cyclopropanec arboxamide 762298-92-0P, N-[3-[1-[3-[[2-(4-Chlorophenyl)propanoyl]amino]
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propyl]-4-piperidinyl]phenyl]butanamide
                                            762298-93-1P,
N-[3-[4-[3-(Acetylamino)phenyl]-1-piperidinyl]propyl]-1-(4-
chlorophenyl) cyclopentanecarboxamide 762298-94-2P, N-[3-[4-[3-
(Acetylamino) phenyl] -1-piperidinyl] propyl] -2-(4-chlorophenyl) -2-
                    762298-95-3P, N-[3-[1-[3-[[2-(4-Chlorophenyl)-2-
methylpropanamide
methylpropanoyl]amino]propyl]-4-piperidinyl]phenyl]butanamide
762298-96-4P, 1-(4-Chlorophenyl)-N-[3-[4-[5-(isobutyrylamino)-2-methylphenyl]-1-piperidinyl)propyl]cyclopentanecarboxamide 762
                                                                762298-97-5P.
2-Methyl-N-[6-[1-[3-[(triphenylacetyl)amino]propyl]-4-piperidinyl]-2-
pyridinyl]propanamide
                        762298-98-6P, N-[3-[4-[6-(Isobutyrylamino)-2-
pyridinyl]-1-piperidinyl]propyl]-2,2-diphenylpropanamide
                                                             762298-99-7P,
1-(4-Chlorophenyl)-N-[3-[4-[6-(isobutyrylamino)-2-pyridinyl]-1-
piperidinyl]propyl]cyclopentanecarboxamide
                                               762299-00-3P
1-(4-Chlorophenyl)-N-[3-[4-[5-(isobutyrylamino)-2-methylphenyl]-1-
piperidinyl]propyl]cyclohexanecarboxamide
                                              762299-01-4P,
1-(4-Chlorophenyl)-N-[3-[4-[5-(isobutyrylamino)-2-methylphenyl]-1-
piperidinyl]propyl]cyclobutanecarboxamide
                                              762299-02-5P.
N-[3-[4-[3-(Butyrylamino)phenyl]-1-piperidinyl]propyl]-1-(4-
fluorophenyl) cyclohexanecarboxamide 762299-03-6P, 2-(4-Chlorophenyl)-N-
[3-[4-[6-(isobutyrylamino)-2-pyridinyl]-1-piperidinyl]propyl]-2-methylpropanamide 762299-04-7P, 1-(4-Chlorophenyl)-N-[3-[4-[5-
methylpropanamide
(isobutyrylamino) -2-methylphenyl] -1-piperidinyl]propyl]cyclopropanecarboxa
       762299-05-8P, 2-(4-Chlorophenyl)-N-[3-[4-[6-(isobutyrylamino)-2-
pyridinyl]-1-piperidinyl]propyl]propanamide
                                                762299-06-9P.
2-(4-Chlorophenyl)-N-[3-[4-[5-(isobutyrylamino)-2-methylphenyl]-1-
piperidinyl]propyl]-2-methylpropanamide
                                           762299-07-0P,
1-(4-Fluorophenyl)-N-[3-[4-[5-(isobutyrylamino)-2-methylphenyl]-1-
piperidinyl]propyl]cyclohexanecarboxamide
                                              762299-08-1P,
1-(4-Fluorophenyl)-N-[3-[4-[5-(isobutyrylamino)-2-methylphenyl]-1-
piperidinyl]propyl]cyclopentanecarboxamide 762299-09-2P,
2-Methyl-\bar{N}-[4-methyl-3-[1-[3-[(triphenylacetyl)amino]propyl]-4-
piperidinyl]phenyl]propanamide
                                  762299-10-5P, N-{3-{4-{3-
(Acetylamino) phenyl] -1-piperidinyl] propyl] -2-(4-chlorophenyl) propanamide
762299-11-6P, N-[3-[4-[5-(Isobutyrylamino)-2-methylphenyl]-1-
piperidinyl]propyl]-2,2-diphenylpropanamide 762299-12-7P,
N-[3-[1-[3-[(Triphenylacetyl)amino]propyl]-4-piperidinyl]phenyl]butanamide
762299-13-8P, N-[3-[1-[3-[(2,2-Diphenylpropanoyl)amino]propyl]-4-
piperidinyl]phenyl]butanamide
                                 762299-14-9P, N-[3-[4-[3-
(Butyrylamino) phenyl] -1-piperidinyl] propyl] -1- (4-
chlorophenyl)cyclohexanecarboxamide 762299-15-0P, 2-(4-Chlorophenyl)-N-
[3-[4-[5-(isobutyrylamino)-2-methylphenyl]-1-piperidinyl]propyl]propanamid
    762299-16-1P, N-[3-[4-[3-(Butyrylamino)phenyl]-1-piperidinyl]propyl]-1-
(4-fluorophenyl)cyclopentanecarboxamide 762299-17-2P,
N-[3-[4-[3-(Butyrylamino)phenyl]-1-piperidinyl]propyl]-1-(4-chlorophenyl)cyclopentanecarboxamide 762299-18-3P, N-[3-[4-[3-
({\tt Acetylamino}) \, {\tt phenyl]-1-piperidinyl] \, {\tt propyl]-2,2-diphenyl propanamide}
762299-19-4P, N-[5-[1-[3-[[Bis(4-fluorophenyl)acetyl]amino]propyl]-4-
piperidinyl]-2-fluorophenyl]butanamide 762299-20-7P 762299-21-8P,
N-[3-[4-[3-(Butyrylamino)phenyl]-1-piperidinyl]propyl]-1-(4-
chlorophenyl)cyclobutanecarboxamide 762299-22-9P, N-[3-[4-[3-
(Butyrylamino) -4-fluorophenyl] -1-piperidinyl]propyl] -1-(4-
fluorophenyl)cyclopentanecarboxamide 762299-23-0P, N-[5-[1-[3-[[Bis(4-
chlorophenyl)acetyl]amino]propyl]-4-piperidinyl]-2-fluorophenyl]butanamide
762299-24-1P, N-[5-[1-[3-[[Bis(4-methylphenyl)acetyl]amino]propyl]-4-
piperidinyl]-2-fluorophenyl]butanamide
                                          762299-25-2P,
N-[5-[1-[3-[[2-(4-Chlorophenyl)-2-methylpropanoyl]amino]propyl]-4-
piperidinyl]-2-fluorophenyl]butanamide
                                          762299-26-3P,
N-[3-[1-[3-[2,2-Bis(4-methylphenyl)acetyl]amino]propyl]-4-
                                                              762299-27-4P,
piperidinyl]phenyl]cyclopropanecarboxamide hydrochloride
1-(4-Chlorophenyl)-N-[3-[4-[3-[(cyclopropylcarbonyl)amino]phenyl]-1-
piperidinyl]propyl]cyclopentanecarboxamide
                                              762299-28-5P,
N-[3-[1-[3-[2,2-Bis(4-chlorophenyl)acetyl]amino]propyl]-4-
                                               762299-29-6P.
piperidinyl]phenyl]cyclopropanecarboxamide
N-[3-[1-[3-[(Triphenylacetyl)amino]propyl]-4-piperidinyl]phenyl]cyclopropa
                 762299-30-9P, N-[3-[1-[3-[[2-(4-Chlorophenyl)-2-
methylpropanoyl]amino]propyl]-4-piperidinyl]phenyl]cyclopropanecarboxamide
762299-31-0P, N-[3-[1-[3-[[2-(4-Chlorophenyl)propanoyl]amino]propyl]-4-
piperidinyl]phenyl]cyclopropanecarboxamide hydrochloride
                                                              762299-32-1P.
N-{3-[4-[3-[(Cyclopropylcarbonyl)amino]phenyl]-1-piperidinyl]propyl]-1-
(2,4-dichlorophenyl) cyclopropanecarboxamide
                                                762299-33-2P,
1-(4-Chlorophenyl)-N-[3-[4-[3-[(cyclopropylcarbonyl)amino]phenyl]-1-
piperidinyl]propyl]cyclopropanecarboxamide hydrochloride
                                                              762299-34-3P
1-(2-Chloro-4-fluorophenyl)-N-[3-[4-[3-[(cyclopropylcarbonyl)amino]phenyl]-
1-piperidinyl]propyl]cyclopentanecarboxamide
                                                 762299-35-4P,
N-[3-[1-[3-[2,2-Bis(4-fluorophenyl)acetyl]amino]propyl]-4-
                                               762299-38-7P,
piperidinyl]phenyl]cyclopropanecarboxamide
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N-[3-[4-[3-[(Cyclopropylcarbonyl)amino]phenyl]-1-piperidinyl]propyl]-1-(4-
fluorophenyl) cyclopentanecarboxamide
                                          762299-40-1P, N-[3-[1-[3-[(2,2-
Diphenylbutanoyl)amino]propyl]-4-piperidinyl]phenyl]cyclopropanecarboxamid
e 762299-41-2P, N-[3-[1-[3-[(2,2-Diphenylpropanoyl)amino]propyl]-4-piperidinyl]phenyl]cyclopropanecarboxamide 762299-43-4P 762299-45
                                                                 762299-45-6P.
N-[3-[1-[3-[(Diphenylacetyl) (ethyl) amino]propyl]-4-piperidinyl]phenyl]-2-
methylpropanamide
                     762299-49-0P, 2-(4-Chlorophenyl)-N-[3-[4-[2-fluoro-5-
(isobutyrylamino)phenyl]-1-piperidinyl]propyl]-2-methylpropanamide
762299-51-4P, 1-(4-Chlorophenyl)-N-[3-[4-[2-fluoro-5-
(isobutyrylamino) phenyl] -1-piperidinyl] propyl] cyclopentanecarboxamide
762299-53-6P, N-[3-[4-[2-Fluoro-5-(isobutyrylamino)phenyl]-1-
piperidinyl]propyl]-1-(4-fluorophenyl)cyclopentanecarboxamide
762299-55-8P, 1-(4-Chlorophenyl)-N-[3-[4-[2-fluoro-5-
(isobutyrylamino)phenyl]-1-piperidinyl]propyl]cyclohexanecarboxamide
hydrochloride 762299-57-0P, N-[3-[4-[2-Fluoro-5-(isobutyrylamino)phenyl]-
1-piperidinyl]propyl]-1-(4-fluorophenyl)cyclohexanecarboxamide
762299-59-2P, N-[3-[1-[3-[[Bis(4-methylphenyl)acetyl]amino]propyl]-4-
piperidinyl]-4-fluorophenyl]-2-methylpropanamide hydrochloride
762299-61-6P, 1-(2-Chloro-4-fluorophenyl)-N-[3-[4-[2-fluoro-5-
(isobutyrylamino)phenyl]-1-piperidinyl]propyl]cyclohexanecarboxamide 762299-63-8P, 1-(2-Chloro-4-fluorophenyl)-N-[3-[4-[5-(isobutyrylamino)-2-
methylphenyl]-1-piperidinyl]propyl]cyclohexanecarboxamide
                                                                 762299-65-0P,
1-(2-Chloro-4-fluorophenyl)-N-[3-[4-[5-(isobutyrylamino)-2-methylphenyl]-1-
piperidinyl]propyl]cyclopentanecarboxamide
                                                762299-67-2P
                                                                762299-69-4P,
1-(2-Chloro-4-fluorophenyl)-N-[3-[4-[2-fluoro-5-(isobutyrylamino)phenyl]-1-
                                                762299-71-8P,
piperidinyl]propyl]cyclopentanecarboxamide
1-(2-Chloro-4-fluorophenyl)-N-[3-[4-[3-(isobutyrylamino)phenyl]-1-
piperidinyl]propyl]cyclohexanecarboxamide
                                              762299-73-0P,
N-[3-[4-[3-[[(Dimethylamino)carbonyl]amino]phenyl]-1-piperidinyl]propyl]-
2,2-bis(4-fluorophenyl)acetamide
                                     762299-75-2P, Benzyl
[3-[1-[3-[[bis(4-fluorophenyl)acetyl]amino]propyl]-4-
piperidinyl]phenyl]carbamate
                                762299-77-4P, Isopropyl
[3-[1-[3-[[2-(4-chlorophenyl)-2-methylpropanoyl]amino]propyl]-4-
                                762299-79-6P, Isopropyl
piperidinyl]phenyl]carbamate
[3-[1-[3-[[bis(4-chlorophenyl)acetyl]amino]propyl]-4-
piperidinyl]phenyl]carbamate
                                 762299-81-0P, Isopropyl
[3-[1-[3-[(diphenylacetyl)amino]propyl]-4-piperidinyl]phenyl]carbamate
762299-83-2P, Isopropyl [3-[1-[3-[[bis(4-methylphenyl)acetyl]amino]propyl]-4-piperidinyl]phenyl]carbamate 762299-85-4P 762299-87-6P, Isopropyl
[3-[1-[3-[[1-(2-chloro-4-fluorophenyl)cyclohexyl]carbonyl]amino)propyl]-4-
piperidinyl]phenyl]carbamate
                                 762299-89-8P, N-[4-[1-[3-
[(Diphenylacetyl)amino]propyl]-4-piperidinyl]phenyl]butanamide
762299-91-2P, N-[5-[1-[3-[(Diphenylacetyl)amino]propyl]-4-piperidinyl]-2-
hydroxyphenyl]-2-methylpropanamide
                                       762299-93-4P, N-[3-[1-[3-[(3,3-
Diphenylpropanoyl)amino[propyl]-4-piperidinyl]phenyl]cyclopropanecarboxami
     762299-95-6P, N-[3-[1-[3-[[(3,4-Difluorophenyl) (hydroxy) acetyl] amino]
propyl]-4-piperidinyl]-4-methylphenyl]-2-methylpropanamide
                                                                  762299-97-8P,
N-[3-[1-[3-[(Hydroxydiphenylacetyl)amino]propyl]-4-piperidinyl]-4-
                                      762299-99-0P, N-[2,4-Difluoro-5-[1-[3-
methylphenyl]-2-methylpropanamide
[(hydroxydiphenylacetyl)amino]propyl]-4-piperidinyl]phenyl]-2-
methylpropanamide
                     762300-03-8P, N-[3-[1-[3-[[Bis(4-
fluorophenyl) (hydroxy) acetyl] amino] propyl] -4-piperidinyl] -4-methylphenyl] -
2-methylpropanamide
                       762300-04-9P
                                       762300-06-1P
                                                       762300-09-4P
762300-11-8P, N-[5-[1-[3-[[Bis(4-fluorophenyl)(hydroxy)acetyl]amino]propyl
]-4-piperidinyl]-2,4-difluorophenyl]-2-methylpropanamide
                                                                762300-13-0P
762300-15-2P
               762300-17-4P
                                762300-19-6P
                                                762300-21-0P
N-[5-[1-[3-[[Bis(4-fluorophenyl)acetyl]amino]propyl]-4-piperidinyl]-2,4-
difluorophenyl]-2-methylpropanamide
                                        762300-23-2P
                                                         762300-25-4P
                                762300-31-2P, N-[5-[1-[3-
762300-26-5P
               762300-28-7P
[(Diphenylacetyl)amino]propyl]-4-piperidinyl]-3-pyridinyl]-2-
methylpropanamide 762300-33-4P, N-[3-[1-[3-[(Diphenylacetyl)amino]propyl
]-4-piperidinyl]-2,4,6-trifluorophenyl]-2-methylpropanamide
762300-35-6P, N-[5-[1-[3-[[Bis(4-fluorophenyl)acetyl]amino]propyl]-4-
piperidinyl]-3-pyridinyl]-2-methylpropanamide
                                                   762300-39-0P,
N-[3-[1-[3-[Bis(4-fluorophenyl)acetyl]amino]propyl]-4-piperidinyl]-2,4,6-
trifluorophenyl]-2-methylpropanamide 762300-41-4P, N-[3-[1-[3-
[(Aminodiphenylacetyl)amino]propyl]-4-piperidinyl}-4-
fluorophenyl]cyclopropanecarboxamide 762300-45-8P, N-[3-[1-[3-[[(4-
Fluorophenyl)acetyl]amino]propyl]-4-piperidinyl]-4-methylphenyl]-2-
                     762300-46-9P, N-[5-[1-[3-[(Hydroxydiphenylacetyl)amino
methylpropanamide
]propyl]-4-piperidinyl]-3-pyridinyl]-2-methylpropanamide
                                                              762300-50-5P,
N-[5-[1-[3-[Bis(4-fluorophenyl)(hydroxy)acetyl]amino]propyl]-4-
piperidinyl]-3-pyridinyl]-2-methylpropanamide
763126-62-1P 763126-64-3P 763126-66-5P 7
                                                   762300-52-7P
                               763126-66-5P 763126-68-7P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
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(Uses)
         (MCH1 receptor antagonist; preparation of N-(piperidinylalkyl)benzenealkanam
         ides as MCH1 receptor antagonists for treatment of obesity and other
         conditions)
     345-24-4P, 1-Bromo-2,4-difluoro-5-nitrobenzene 357-60-8P,
TT
     Bis(4-fluorophenyl)(hydroxy)acetic acid 361-63-7P, Bis(4-
     fluorophenyl)acetic acid 452-92-6P, 5-Bromo-2,4-difluoroaniline 2695-79-6P 20809-78-3P, Bis(4-methylphenyl)acetic acid 83948-53-2P,
     tert-Butyl (3-bromopropyl) carbamate 105879-62-7P, (2R)-2-(4-
     Chlorophenyl) propanoic acid
                                        105879-63-8P, (2S)-2-(4-
     Chlorophenyl) propanoic acid
                                        138647-49-1P, tert-Butyl
     4-[[(trifluoromethyl)sulfonyl]oxy]-3,6-dihydro-1(2H)-pyridinecarboxylate
     147224-48-4P, (4R)-3-[(4-Chlorophenyl)acetyl]-4-isopropyl-1,3-oxazolidin-2-
           150360-26-2P, (2R)-2-(4-Fluorophenyl) propanoic acid 178104-96-6P,
      (4S)-3-[(4-Chlorophenyl)acetyl]-4-isopropyl-1,3-oxazolidin-2-one
     191725-90-3P, (2S)-2-(4-Fluorophenyl) propanoic acid
                                                                   286961-14-6P.
     tert-Butyl 4-(4,4,5,5-tetramethyl-1,3,2-dioxaborolan-2-yl)-3,6-dihydro-
     1(2H)-pyridinecarboxylate
                                     387826-50-8P, N-[3-[1-[6-(1,3-Dioxo-1,3-
     dihydro-2H-isoindol-2-yl)hexyl]-4-piperidinyl]phenyl]-2-methylpropanamide
     387826-52-0P, N-[3-[1-[4-(1,3-Dioxo-1,3-dihydro-2H-isoindol-2-yl)butyl]-4-
     piperidinyl]phenyl]-2-methylpropanamide
                                                      387826-53-1P,
     N-[3-[1-[5-(1,3-Dioxo-1,3-dihydro-2H-isoindol-2-yl)pentyl]-4-
     piperidinyl]phenyl]-2-methylpropanamide 387826-55-3P,
     N-[3-[1-[3-(1,3-Dioxo-1,3-dihydro-2H-isoindol-2-yl)propyl]-4-
     piperidinyl]phenyl]-2-methylpropanamide 387826-71-3P,
     N-[3-[1-((3R)-3-Hydroxy-3-phenylpropyl)-4-piperidinyl]phenyl]-2-
     methylpropanamide 387826-96-2P, N-[3-[1-[(3S)-3-(1,3-Dioxo-1,3-dihydro-
     2H-isoindol-2-yl)-3-phenylpropyl]-4-piperidinyl]phenyl]-2-methylpropanamide 387827-18-1P, tert-Butyl 4-(3-aminophenyl)-3,6-dihydro-
     1(2H)-pyridinecarboxylate 387827-19-2P, tert-Butyl 4-[3-(amino)phenyl]-1-
     piperidinecarboxylate 387827-24-9P, tert-Butyl 4-[3-(acetylamino)phenyl]-1-piperidinecarboxylate 387827-26-1P, tert-Butyl [3-[4-[3-
                                                                    387827-27-2P.
      (acetylamino)phenyl]-1-piperidinyl]propyl]carbamate
     N-[3-[1-(3-Aminopropyl)-4-piperidinyl]phenyl]acetamide
                                                                       387827-30-7P,
     tert-Butyl 4-[3-(isobutyrylamino)phenyl]-3,6-dihydro-1(2H)-
     pyridinecarboxylate
                              387827-31-8P, tert-Butyl 4-[3-
      (isobutyrylamino)phenyl]-1-piperidinecarboxylate
                                                                387827-32-9P.
     2-Methyl-N-[3-(4-piperidinyl)phenyl]propanamide
                                                                387827-49-8P,
     2-((1S)-3-Chloro-1-phenylpropyl)-1H-isoindole-1,3(2H)-dione
     486430-92-6P, N-[3-(4-Piperidyl)phenyl]acetamide hydrochloride
     486445-46-9P, tert-Butyl 4-[3-(propionylamino)phenyl]-1-piperidinecarboxylate 486445-48-1P, N-[3-(4-
     Piperidinyl) phenyl] propanamide
                                           486445-52-7P, tert-Butyl
     4-[3-[(cyclopropylcarbonyl)amino]phenyl]-1-piperidinecarboxylate
     486445-75-4P, N-[3-(4-Piperidinyl)phenyl]cyclopropanecarboxamide
     486447-47-6P, 2-Methyl-N-[4-(4-piperidinyl)phenyl]propanamide
486447-71-6P, N-[4-(4-Piperidinyl)phenyl]butanamide 486448-
     N-[3-[1-(2-Aminoethyl)-4-piperidinyl]phenyl]-2-methylpropanamide
     486449-00-7P, N-[3-[1-(3-Aminopropyl)-4-piperidinyl]phenyl]-2-methylpropanamide 486449-03-0P, N-[3-[1-(4-Aminobutyl)-4-
     piperidinyl]phenyl]-2-methylpropanamide 486449-04-1P,
     N-[3-[1-(5-Aminopentyl)-4-piperidinyl]phenyl]-2-methylpropanamide
     486449-05-2P, N-[3-[1-(6-Aminohexyl)-4-piperidinyl]phenyl]-2-methylpropanamide 486449-76-7P, N-(6-Bromo-2-pyridinyl)-2-methylpropanamide 486449-89-2P, N-(3-Bromo-4-methylphenyl)-2-
     methylpropanamide
                            486451-46-1P, 2-Methyl-N-[4-methyl-3-(4-
     piperidinyl)phenyl]propanamide 487057-86-3P, tert-Butyl
     4-[5-(isobutyrylamino)-2-methylphenyl]-3,6-dihydro-1(2H)-
     pyridinecarboxylate 487057-87-4P, tert-Butyl 4-[5-(isobutyrylamino)-2-
     methylphenyl]-1-piperidinecarboxylate
                                                   487057-88-5P, N-[3-[1-[2-(1,3-
     Dioxo-1,3-dihydro-2H-isoindol-2-yl)ethyl]-4-piperidinyl]phenyl]-2-
     methylpropanamide 487057-93-2P, 2-Methyl-N-[6-(4-piperidinyl)-2-pyridinyl]propanamide 487058-93-5P, N-[3-[1-[3-
     [(Diphenylacetyl)amino]propyl]-4-piperidinyl]phenyl]-2-methylpropanamide
     hydrochloride 644974-20-9P, N-(3-Bromopropyl)-2,2-diphenylacetamide
648901-46-6P, tert-Butyl 4-(5-amino-2-methoxyphenyl)-1-
piperidinecarboxylate 762297-38-1P, N-[3-(4-
     Piperidinyl)phenyl]butanamide 762297-39-2P, 1,1-Dimethyl-3-[3-(4-
     piperidinyl)phenyl]urea 762297-40-5P, Isopropyl [3-(4-
                                         762297-41-6P, Benzyl [3-(4-
762297-42-7P, N-(3-Bromo-2-methylphenyl)-2-
     piperidinyl)phenyl]carbamate
     piperidinyl)phenyl]carbamate
                            762297-43-8P, 2-Methyl-N-[2-methyl-3-(4-propanamide 762297-44-9P, tert-Butyl
     methylpropanamide
     piperidinyl)phenyl]propanamide
     4-(2-methoxy-5-nitrophenyl)-3,6-dihydro-1(2H)-pyridinecarboxylate
     762297-45-0P, tert-Butyl 4-[5-(isobutyrylamino)-2-methoxyphenyl]-1-piperidinecarboxylate 762297-46-1P, N-[4-Methoxy-3-(4-
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piperidinyl)phenyl]-2-methylpropanamide
                                                   762297-47-2P,
N-[4-Fluoro-3-(4-piperidinyl)phenyl]-2-methylpropanamide
                                                                          762297-48-3P.
N-[2-Fluoro-5-(4-piperidinyl)phenyl]-2-methylpropanamide
                                                                         762297-49-4P.
N-[4-Fluoro-3-(4-piperidinyl)phenyl]butanamide
                                                             762297-50-7P.
N-[2-Fluoro-5-(4-piperidinyl)phenyl]butanamide
                                                             762297-51-8P,
N-[4-Methoxy-3-(4-piperidinyl)phenyl]butanamide
                                                             762297-52-9P,
N-[2-Hydroxy-5-(4-piperidinyl)phenyl]-2-methylpropanamide 762297-53-0P,
N-[3-[1-(3-Aminopropyl)-4-piperidinyl]phenyl]butanamide 762297-54-1P,
N-[3-[1-(3-Aminopropyl)-4-piperidinyl]-4-methylphenyl]-2-methylpropanamide
762297-55-2P, N-[3-[1-(3-Aminopropyl)-4-piperidinyl]-4-fluorophenyl]-2-
                        762297-56-3P, N-[6-[1-(3-Aminopropyl)-4-piperidinyl]-2-propanamide 762297-57-4P, N-[5-[1-(3-Aminopropyl)-4-
methylpropanamide
pyridinyl]-2-methylpropanamide
piperidinyl]-2-fluorophenyl]-2-methylpropanamide 762297-58-5P,
N-[5-[1-(3-Aminopropyl)-4-piperidinyl]-2-fluorophenyl]butanamide
762297-59-6P, N-[3-[1-(3-Aminopropyl)-4-piperidinyl]phenyl]propanamide
762297-60-9P, N-[3-[1-(3-Aminopropyl)-4-piperidinyl]phenyl]cyclopropanecar
             762297-61-0P, N-[3-[1-(3-Aminopropyl)-4-piperidinyl]phenyl]-2,2-
boxamide
dimethylpropanamide 762297-62-1P, N-[3-[1-(3-Aminopropy1)-4-piperidinyl]phenyl]-3-methylbutanamide 762297-63-2P,
N-[3-[1-(3-Aminopropyl)-4-piperidinyl]phenyl]-3,3-dimethylbutanamide
762297-64-3P, 3-[3-[1-(3-Aminopropyl)-4-piperidinyl]phenyl]-1,1-
                  762297-65-4P, Isopropyl [3-[1-(3-aminopropyl)-4-
dimethylurea
piperidinyl]phenyl]carbamate 762297-66-5P, Benzyl [3-[1-(3-aminopropyl)-4-piperidinyl]phenyl]carbamate 762297-67-6P, N-[3-[1-(3-Aminopropyl)-4-piperidinyl]-4-methoxyphenyl]-2-methylpropanamide 762297-68-7P,
N-[3-[1-(3-Aminopropyl)-4-piperidinyl]-4-methoxyphenyl]butanamide
762297-69-8P, N-[5-[1-(3-Aminopropyl)-4-piperidinyl]-2-hydroxyphenyl]-2-
methylpropanamide 762297-72-3P, (4S)-3-[(4-Fluorophenyl)acetyl]-4-isopropyl-1,3-oxazolidin-2-one 762297-73-4P, (4R)-3-[(4-
Fluorophenyl)acetyl]-4-isopropyl-1,3-oxazolidin-2-one
                                                                    762297-74-5P
762297-77-8P
                  762297-79-0P 762297-81-4P 762297-93-8P,
2-Bromo-1,3,5-trifluoro-4-nitrobenzene 762297-95-0P,
3-Bromo-2,4,6-trifluoroaniline 762297-97-2P, N-(5-Bromo-2,4-
difluorophenyl)-2-methylpropanamide 762297-99-4P, N-(3-Bromo-2,4,6-trifluorophenyl)-2-methylpropanamide 762298-01-1P, tert-Butyl
4-[2,4-difluoro-5-(isobutyrylamino)phenyl]-3,6-dihydro-1(2H)-
pyridinecarboxylate 762298-03-3P, tert-Butyl 4-[2,4,6-trifluoro-3-
(isobutyrylamino)phenyl]-3,6-dihydro-1(2H)-pyridinecarboxylate
762298-05-5P, tert-Butyl 4-[2,4-difluoro-5-(isobutyrylamino)phenyl]-1-
piperidinecarboxylate 762298-07-7P, N-[2,4-Difluoro-5-(4-piperidinyl)phenyl]-2-methylpropanamide 762298-08-8P,
piperidinyl)phenyl]-2-methylpropanamide
2-Methyl-N-[2,4,6-trifluoro-3-(1,2,3,6-tetrahydro-4-
pyridinyl)phenyl]propanamide 762298-09-9P, 2-Methyl-N-[2,4,6-trifluoro-3-
(4-piperidinyl)phenyl]propanamide 762298-10-2P, Benzyl
(5-bromo-3-pyridinyl) carbamate 762298-11-3P, tert-Butyl
4-[5-[[(phenylmethoxy)carbonyl]amino]-3-pyridyl]-1,2,5,6-tetrahydro-1-
pyridinecarboxylate 762298-12-4P, tert-Butyl 4-(5-amino-3-pyridinyl)-1-piperidinecarboxylate 762298-13-5P, tert-Butyl 4-[5-(isobutyrylamino)-3-pyridinyl]-1-piperidinecarboxylate 762298-14-6P, 2-Methyl-N-[5-(4-
piperidinyl)-3-pyridinyl]propanamide
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
    (intermediate; preparation of N-(piperidinylalkyl)benzenealkanamides as MCH1
    receptor antagonists for treatment of obesity and other conditions)
76-93-7, Hydroxydiphenylacetic acid, reactions
                                                           79-30-1,
2-Methylpropanoyl chloride 83-05-6, Bis(4-chlorophenyl)acetic acid
                           103-82-2, Phenylacetic acid, reactions 348-57-2, 1-Bromo-2,4-difluorobenzene
85-41-6, Phthalimide
                                                                              110-89-4.
Piperidine, reactions
                                                                               360-03-2.
2,2-Difluoro-2-phenylacetic acid 405-50-5, (4-Fluorophenyl)acetic acid
459-04-1, (4-Fluorophenyl)acetyl chloride 462-06-6, Fluorobenzene
579-39-5, 1,2-Bis(4-fluorophenyl)-1,2-ethanedione 595-91-5,
Triphenylacetic acid 606-83-7, 3,3-Diphenylpropanoic acid 884,4'-Dimethylbenzhydrol 938-79-4, (2R)-2-Phenylbutanoic acid
                                                                            885-77-8.
2-(4-Chlorophenyl) propanoic acid 1871-76-7, Diphenylacetyl chloride
3060-50-2, Aminodiphenylacetic acid 3152-12-3, Bis(2-
chlorophenyl) (hydroxy) acetic acid 3457-48-5,
1,2-Bis(4-methylphenyl)-1,2-ethanedione 3901-04-0 4226-57-7,
2,2-Diphenylbutanoic acid 4286-15-1, (2S)-2-Phenylbutanoic acid
4870-65-9, Bromo(phenyl) acetic acid 5003-71-4, 3-Bromopropylamine
hydrobromide
                 5197-28-4, 2-Bromo-4-nitroanisole 5558-66-7,
2,2-Diphenylpropionic acid 6258-30-6, 2-(4-Chlorophenyl)-2-
methylpropanoic acid
                          7693-52-9, 4-Bromo-2-nitrophenol
                                                                       7745-91-7,
3-Bromo-4-methylaniline 7782-24-3, (2S)-2-Phenylpropanoic acid
7782-26-5, (2R)-2-Phenylpropanoic acid 13911-20-1, (3,4-
                                             Dichlorophenyl) (methoxy) acetic acid 16036-85-4 (Ethylsulfanyl) diphenylacetic acid 17016-83-0
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TТ

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5-Bromonicotinic acid
                             25026-34-0, (4-Chlorophenyl)acetyl chloride
     50921-39-6, 1-(4-Chlorophenyl)cyclobutanecarboxylic acid
     1-(4-Chlorophenyl)cyclohexanecarboxylic acid 66472-86-4,
                                                  72934-37-3, 1-(4-
73183-34-3 75908-73-5,
     (3-Aminophenyl)boronic acid hemisulfate
     Chlorophenyl)cyclopropanecarboxylic acid
     2-(4-Fluorophenyl)propanoic acid 79099-07-3, tert-Butyl
     4-oxo-1-piperidinecarboxylate 80789-69-1, 1-(4-Chlorophenyl)cyclopentanecarboxylic acid 84604-70-6,
     1-(2,4-Dichlorophenyl)cyclopropanecarboxylic acid 95530-58-8
100306-33-0, (R)-(+)-3-Chloro-1-phenyl-1-propanol 132741-29-8,
     100306-33-0, (R)-(+)-3-Chloro-1-phenyl-1-propanol
     (3,4-Difluorophenyl) (hydroxy) acetic acid 198337-89-2,
                                   214262-99-4, 1-(4-
     2,2-Diphenylheptanoic acid
     Fluorophenyl)cyclopentanecarboxylic acid 214263-00-0
     1-(4-Fluorophenyl)cyclohexanecarboxylic acid 214263-01-1,
     1-(2-Chloro-4-fluorophenyl)cyclopentanecarboxylic acid
                                                                 214263-02-2,
     1-(2-Chloro-4-fluorophenyl)cyclohexanecarboxylic acid
                                                                 387827-25-0.
     N-[3-(4-Piperidyl)phenyl]acetamide
                                           762298-39-5, N-[3-[1-(3-Aminopropyl)-
     4-piperidinyl]-4-fluorophenyl]butanamide
                                                  762298-47-5,
     N-[3-{1-(3-Aminopropyl)-4-piperidinyl}-2-methylphenyl]-2-methylpropanamide
     762298-88-4, N-[3-[1-(3-Aminopropyl)-4-piperidinyl]-2-pyridinyl]-2-
                         762299-47-8, N-[3-[1-[3-(Ethylamino)propyl]-4-
     methylpropanamide
     piperidinyl]phenyl]-2-methylpropanamide 762300-01-6,
     N-[5-[1-(3-Aminopropyl)-4-piperidinyl]-2,4-difluorophenyl]-2-
     methylpropanamide 762300-37-8, N-(3-Bromopropyl)-2,2-bis(4-
                               762300-43-6, N-[3-[1-(3-Aminopropyl)-4-
     fluorophenyl)acetamide
     piperidinyl]-4-fluorophenyl]cyclopropanecarboxamide
                                                               762300-48-1,
     N-[5-[1-(3-Aminopropyl)-4-piperidinyl]-3-pyridinyl]-2-methylpropanamide
     RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of N-(piperidinylalkyl)benzenealkanamides as MCH1 receptor
        antagonists for treatment of obesity and other conditions)
IT
     579-39-5, 1,2-Bis(4-fluorophenyl)-1,2-ethanedione
     3457-48-5, 1,2-Bis(4-methylphenyl)-1,2-ethanedione
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (preparation of N-(piperidinylalkyl)benzenealkanamides as MCH1 receptor
        antagonists for treatment of obesity and other conditions)
RN
     579-39-5 HCAPLUS
CN
     Ethanedione, bis(4-fluorophenyl) - (9CI) (CA INDEX NAME)
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RN 3457-48-5 HCAPLUS CN Ethanedione, bis(4-methylphenyl)- (9CI) (CA INDEX NAME)

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ANSWER 5 OF 19 HCAPLUS COPYRIGHT 2004 ACS on STN
L42
AN
     2004:703124 HCAPLUS
     141:218944
DN
     Entered STN: 27 Aug 2004
ED
TI
     Treating conditions associated with an Edg-7 receptor
ΤN
     Shankar, Geetha; Solow-Cordero, David; Spencer, Juliet V.; Gluchowski,
     Charles
PA
     USA
SO
    U.S. Pat. Appl. Publ., 29 pp.
     CODEN: USXXCO
DT
     Patent
LA
     English
     ICM A61K031-445
IC
    514317000
NCL
CC
    1-6 (Pharmacology)
FAN.CNT 1
     PATENT NO.
                         KIND
                                DATE
                                             APPLICATION NO.
                                                                    DATE
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--------------PΙ US 2004167165 A1 20040826 US 2004-760062 20040116 <--PRAI US 2003-440336P 20030116 P CLASS CLASS PATENT FAMILY CLASSIFICATION CODES PATENT NO. ICM US 2004167165 A61K031-445 NCI. 514317000 US 2004167165 ECLA A61K031/445 <-os MARPAT 141:218944 GΙ

$$\mathbb{R}^4$$
 \mathbb{R}^7
 \mathbb{R}^2
 \mathbb{R}^1
 \mathbb{R}^2
 \mathbb{R}^2

AB The invention provides a method for modulating an Edg-7 receptor mediated biol. activity in a cell. A cell expressing the Edg-7 receptor is contacted with a modulator of the Edg-7 receptor which is capable of modulating an Edg-7 receptor mediated biol. activity. The invention provides a method for modulating an Edg-7 receptor mediated biol. activity in a subject. A therapeutically effective amount of the Edg-7 receptor modulator with formula I (where R1, R2 R3 R4 and R7 = -H,-halo,-CN, -NO2 etc. independently) or with formula II (where R1, R2, R3, R4 and R7 = -H,-halo, -NO2 -CN, etc.) or a pharmaceutically available solvate or hydrate therof is administered to the subject.

ST endothelial differentiation gene receptor cell proliferation

Receptors

RL: BSU (Biological study, unclassified); BIOL (Biological study) (EDG-1 (endothelial differentiation gene 1); methods of treating conditions associated with an Edg-7 receptor)

IT Receptors

RL: BSU (Biological study, unclassified); BIOL (Biological study) (EDG-2 (endothelial differentiation gene 2); methods of treating conditions associated with an Edg-7 receptor)

IT Receptors

RL: BSU (Biological study, unclassified); BIOL (Biological study) (EDG-3 (endothelial differentiation gene 3); methods of treating conditions associated with an Edg-7 receptor)

IT Receptors

RL: BSU (Biological study, unclassified); BIOL (Biological study) (EDG-4 (endothelial differentiation gene 4); methods of treating conditions associated with an Edg-7 receptor)

IT Receptors

RL: BSU (Biological study, unclassified); BIOL (Biological study) (EDG-5 (endothelial differentiation gene 5); methods of treating conditions associated with an Edg-7 receptor)

IT Receptors

RL: BSU (Biological study, unclassified); BIOL (Biological study) (EDG-6 (endothelial differentiation gene 6); methods of treating conditions associated with an Edg-7 receptor)

IT Receptors

RL: BSU (Biological study, unclassified); BIOL (Biological study) (EDG-7 (endothelial differentiation gene 7); methods of treating conditions associated with an Edg-7 receptor)

IT Receptors

RL: BSU (Biological study, unclassified); BIOL (Biological study) (EDG-8 (endothelial differentiation gene 8); methods of treating conditions associated with an Edg-7 receptor)

IT Platelet (blood)

(activation; methods of treating conditions associated with an Edg-7 receptor)

IT Respiratory distress syndrome

(adult; methods of treating conditions associated with an Edg-7 receptor)

IT Antiarteriosclerotics

IT Immunity

(autoimmunity; methods of treating conditions associated with an Edg-7

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receptor)
IT
     Uterus, neoplasm
         (cervix; methods of treating conditions associated with an Edg-7 receptor)
IT
     Intestine, neoplasm
         (colon; methods of treating conditions associated with an Edg-7 receptor)
IT
     Intestine, neoplasm
         (colorectal; methods of treating conditions associated with an Edg-7
        receptor)
IT
     Fibroblast
         (disease; methods of treating conditions associated with an Edg-7
        receptor)
TΨ
     Uterus, neoplasm
         (endometrium; methods of treating conditions associated with an Edg-7
        receptor)
IT
     Sarcoma
         (fibrosarcoma; methods of treating conditions associated with an Edg-7
        receptor)
IT
     Liver, neoplasm
         (hepatoma; methods of treating conditions associated with an Edg-7
        receptor)
IT
     Cell proliferation
         (inhibition; methods of treating conditions associated with an Edg-7
        receptor)
TT
     Heart, disease
        (ischemia; methods of treating conditions associated with an Edg-7
        receptor)
IT
     Angiogenesis
     Anti-inflammatory agents
     Anti-ischemic agents
     Antiasthmatics
     Apoptosis
     Asthma
     Atherosclerosis
     Carcinoma
     Cardiovascular agents
     Cell migration
     Cell proliferation
     Human
     Inflammation
     Intestine, neoplasm
       Kidney, neoplasm
     Lung, disease
     Lung, neoplasm
     Mammary gland, neoplasm
     Myoblast
     Nerve, disease
     Ovary, disease
     Ovary, neoplasm
     Pancreas, neoplasm
     Peritoneum, neoplasm
     Pheochromocytoma
     Prostate gland, neoplasm
     Stomach, neoplasm
     Thyroid gland, neoplasm
     Uterus, neoplasm
     Wound healing
        (methods of treating conditions associated with an Edg-7 receptor)
     Actins
     Interleukin 8
     Lysophosphatidic acids
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (methods of treating conditions associated with an Edg-7 receptor)
                     127464-60-2, Vascular endothelial growth factor
     60-92-4, CAMP
IT
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (methods of treating conditions associated with an Edg-7 receptor)
     7741-53-9P
     RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP
     (Preparation); RACT (Reactant or reagent); USES (Uses)
        (methods of treating conditions associated with an Edg-7 receptor)
     21829-28-7P 21881-77-6P 40622-01-3P 66085-59-4P 306764-68-1P 353469-11-1P 353484-05-6P 524714-70-3P 569656-29-7P
     RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
     (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
        (methods of treating conditions associated with an Edg-7 receptor)
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IT
     108-38-3, 1,3-Dimethylbenzene, reactions
                                               619-05-6, 3,4-Diaminobenzoic
     acid 1226-42-2, 4,4'-Dimethoxybenzil 7440-66-6, Zinc,
     reactions 7487-94-7, Mercury (II) chloride, reactions
                                                               7722-84-1,
     Hydrogen peroxide, reactions
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (methods of treating conditions associated with an Edg-7 receptor)
     76293-13-5P, 2,4-Dimethylthioxanthen-9-one
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (methods of treating conditions associated with an Edg-7 receptor)
     7440-70-2, Calcium, biological studies
IT
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (transport; methods of treating conditions associated with an Edg-7
        receptor)
     1226-42-2, 4,4'-Dimethoxybenzil
IT
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (methods of treating conditions associated with an Edg-7 receptor)
RN
     1226-42-2 HCAPLUS
    Ethanedione, bis(4-methoxyphenyl) - (9CI) (CA INDEX NAME)
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L42 ANSWER 6 OF 19 HCAPLUS COPYRIGHT 2004 ACS on STN
AN
     2004:609929 HCAPLUS
DN
     141:157023
ED
     Entered STN: 30 Jul 2004
     Preparation of 3,4-diaminocyclobutene-1,2-diones as CXC-chemokine receptor
TI
IN
     Taveras, Arthur G.; Aki, Cynthia J.; Bond, Richard W.; Chao, Jianping;
     Dwyer, Michael; Ferreira, Johan A.; Chao, Jianhua; Yu, Younong; Baldwin,
     John J.; Kaiser, Bernd; Li, Ge; Merritt, J. Robert; Biju, Purakkattle J.;
     Nelson, Kingsley H.; Rokosz, Laura L.; Jakway, James P.; Lai, Gaifa; Wu,
     Minglang; Hecker, Evan A.; Lundell, Daniel; Fine, Jay S.
     Schering Corporation and Pharmacopeia, Inc., USA
U.S. Pat. Appl. Publ., 352 pp., Cont.-in-part of U.S. Ser. No. 241,326.
PΑ
SO
     CODEN: USXXCO
DT
     Patent
     English
LΑ
IC
     ICM C07D277-08
         C07D263-02; C07D213-46; A61K031-4439; A61K031-444
NCL
     514332000; 514340000; 514341000; 514365000; 514374000; 514396000;
     514397000; 546267000; 546270400; 546272700
     27-6 (Heterocyclic Compounds (One Hetero Atom))
     Section cross-reference(s): 1, 24, 25, 28, 34, 63
FAN.CNT 5
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                                                                       20030730 <--
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     US 2004097547
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                         C07C255/59; C07C311/39; C07D207/32C4; C07D021/74;
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                         C07D405/12; C07D409/12; C07D409/12; C07D409/14;
                         C07D413/12; C07D413/14
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 US 2004097547
                 ECLA
                         C07C225/20; C07C237/30; C07C255/59; C07D213/74;
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O O NHA

GI

AB Title compds. [I; A = (substituted) pyridylmethyl, thiazolylmethyl, benzofurylmethyl, isoxazolylmethyl, pyrazinylmethyl, triazolylmethyl, phenylalkyl, etc.; B = (substituted) Ph, benzotriazolyl, benzimidazolyl, imidazolyl, pyrazolyl, hydroxypyridinyl, thienyl, pyrrolyl, isothiazolyl, etc.], were prepared Thus, title compound (II) (preparation outlined) showed Ki = 0.8 nM in a CXCR2 SPA receptor binding assay.

ST aminocyclobutenedione prepn CXC chemokine receptor ligand; cyclobutenedione diamino prepn CXC chemokine receptor ligand; squaric acid amide prepn cancer pain inflammation contusion treatment

Chemokine receptors
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(CXCR1, modulators; preparation of diaminocyclobutenediones as CXC chemokine receptor ligands)

IT Chemokine receptors

RL: BSU (Biological study, unclassified); BIOL (Biological study) (CXCR2, modulators; preparation of diaminocyclobutenediones as CXC chemokine receptor ligands)

IT Intestine, disease

(Crohn's, treatment; preparation of diaminocyclobutenediones as CXC chemokine receptor ligands)

IT Sarcoma

(Kaposi's, treatment; preparation of diaminocyclobutenediones as CXC chemokine receptor ligands)

IT Respiratory distress syndrome

(acute, treatment; preparation of diaminocyclobutenediones as CXC chemokine receptor ligands)

IT Respiratory tract, disease

(adult, treatment; preparation of diaminocyclobutenediones as CXC chemokine receptor ligands)

IT Respiratory tract

(airflow obstruction treatment; preparation of diaminocyclobutenediones as CXC chemokine receptor ligands)

IT Liver, disease

(alc., treatment; preparation of diaminocyclobutenediones as CXC chemokine receptor ligands)

IT Transplant rejection

(allotransplant, treatment; preparation of diaminocyclobutenediones as CXC chemokine receptor ligands)

IT Eye, disease

(angiogenic ocular disease treatment; preparation of diaminocyclobutenediones as CXC chemokine receptor ligands)

IT Hormones, animal, biological studies

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(anti-, coadministration; preparation of diaminocyclobutenediones as CXC chemokine receptor ligands)

IT Acne

(anti-acne drugs; preparation of diaminocyclobutenediones as CXC chemokine receptor ligands)

IT Antiarteriosclerotics

(antiatherosclerotics; preparation of diaminocyclobutenediones as CXC chemokine receptor ligands)

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IT
     Cytotoxic agents
        (antimetabolites, coadministration; preparation of diaminocyclobutenediones
        as CXC chemokine receptor ligands)
IT
     Dermatitis
        (atopic, treatment; preparation of diaminocyclobutenediones as CXC chemokine
        receptor ligands)
IT
     Bronchi, disease
        (bronchiectasis, treatment; preparation of diaminocyclobutenediones as CXC
        chemokine receptor ligands)
IT
     Bronchi, disease
        (bronchiolitis, treatment; preparation of diaminocyclobutenediones as CXC
        chemokine receptor ligands)
IT
     Stomach, neoplasm
        (carcinoma, treatment; preparation of diaminocyclobutenediones as CXC
        chemokine receptor ligands)
IT
     Bronchi, disease
        (chronic bronchitis, treatment; preparation of diaminocyclobutenediones as
        CXC chemokine receptor ligands)
     Lung, disease
        (chronic obstructive, treatment; preparation of diaminocyclobutenediones as
        CXC chemokine receptor ligands)
IT
     Inflammation
        (chronic, treatment; preparation of diaminocyclobutenediones as CXC
        chemokine receptor ligands)
IT
     Nervous system, neoplasm
        (cns tumors treatment; preparation of diaminocyclobutenediones as CXC
        chemokine receptor ligands)
    Alkylating agents, biological (coadministration; preparation of diaminocyclobutenediones as CXC chemokine
TT
        receptor ligands)
IT
    Hormones, animal, biological studies
     Natural products
     Steroids, biological studies
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (coadministration; preparation of diaminocyclobutenediones as CXC chemokine
        receptor ligands)
TT
     Dialvsis
        (continuous ambulatory peritoneal dialysis associated treatment; preparation of
        diaminocyclobutenediones as CXC chemokine receptor ligands)
     Respiratory tract, disease
        (cor pulmonae, treatment; preparation of diaminocyclobutenediones as CXC
        chemokine receptor ligands)
IT
     Eye
        (cornea, corneal neovascularization treatment; preparation of
        diaminocyclobutenediones as CXC chemokine receptor ligands)
IT
    Artery, disease
        (coronary, restenosis, treatment; preparation of diaminocyclobutenediones as
        CXC chemokine receptor ligands)
IT
    Arthritis
        (crystal induced-, treatment; preparation of diaminocyclobutenediones as CXC
        chemokine receptor ligands)
IT
     Eye, disease
        (diabetic retinopathy, treatment; preparation of diaminocyclobutenediones as
        CXC chemokine receptor ligands)
TT
    Joint, anatomical
        (disease, sprain, treatment; preparation of diaminocyclobutenediones as CXC
        chemokine receptor ligands)
IT
    Meninges
        (disease, subarachnoid hemorrhage, treatment; preparation of
        diaminocyclobutenediones as CXC chemokine receptor ligands)
IT
    Breathing (animal)
        (dyspnea, treatment; preparation of diaminocyclobutenediones as CXC chemokine receptor ligands)
IT
    Transplant rejection
        (early transplantation rejection treatment; preparation of
        diaminocyclobutenediones as CXC chemokine receptor ligands)
IT
     Esophagus, disease
        (esophagitis, treatment; preparation of diaminocyclobutenediones as CXC
        chemokine receptor ligands)
IT
    Lung, disease
        (fibrosis, treatment; preparation of diaminocyclobutenediones as CXC
        chemokine receptor ligands)
IT
    Gingiva, disease
        (gingivitis, treatment; preparation of diaminocyclobutenediones as CXC
        chemokine receptor ligands)
ΙT
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Kidney, disease

(glomerulonephritis, treatment; preparation of diaminocyclobutenediones as CXC chemokine receptor ligands) IT Tongue, disease (glossitis, treatment; preparation of diaminocyclobutenediones as CXC chemokine receptor ligands) IT Transplant and Transplantation (graft-vs.-host reaction, treatment; preparation of diaminocyclobutenediones as CXC chemokine receptor ligands) IT Sepsis (gram neg. sepsis treatment; preparation of diaminocyclobutenediones as CXC chemokine receptor ligands) TT Skin, disease (herpes, treatment; preparation of diaminocyclobutenediones as CXC chemokine receptor ligands) IT Inflammation (hyper-, treatment; preparation of diaminocyclobutenediones as CXC chemokine receptor ligands) IT Inflammation (hyperoxia induced-, treatment; preparation of diaminocyclobutenediones as CXC chemokine receptor ligands) IT Respiratory tract, disease (hyperresponsiveness, treatment; preparation of diaminocyclobutenediones as CXC chemokine receptor ligands) IT Allergy (hypersensitivity, delayed type hypersensitivity reaction treatment; preparation of diaminocyclobutenediones as CXC chemokine receptor ligands) IT Hypoxia, animal (hypoxemia, treatment; preparation of diaminocyclobutenediones as CXC chemokine receptor ligands) IT Human herpesvirus (infection treatment; preparation of diaminocyclobutenediones as CXC chemokine receptor ligands) Ehrlichia IT (infection, granulocytic ehrlichosis, treatment; preparation of diaminocyclobutenediones as CXC chemokine receptor ligands) ΙT Eye, disease (inflammation, treatment; preparation of diaminocyclobutenediones as CXC chemokine receptor ligands) IT Intestine, disease (inflammatory, treatment; preparation of diaminocyclobutenediones as CXC chemokine receptor ligands) IT Skin, disease (injury, contusion, treatment; preparation of diaminocyclobutenediones as CXC chemokine receptor ligands) IT Reperfusion (injury, treatment; preparation of diaminocyclobutenediones as CXC chemokine receptor ligands) IT Brain, disease Heart, disease (ischemia, treatment; preparation of diaminocyclobutenediones as CXC chemokine receptor ligands) IT Eye, disease (macula, degeneration, treatment; preparation of diaminocyclobutenediones as CXC chemokine receptor ligands) TΨ Multiple organ failure (multiorgan dysfunction treatment; preparation of diaminocyclobutenediones as CXC chemokine receptor ligands) IT Eye, disease (neovascularization, corneal neovascularization treatment; preparation of diaminocyclobutenediones as CXC chemokine receptor ligands) IT Angiogenesis (neovascularization, eye, corneal neovascularization treatment; preparation of diaminocyclobutenediones as CXC chemokine receptor ligands) IT Lung, neoplasm (non-small-cell carcinoma, treatment; preparation of diaminocyclobutenediones as CXC chemokine receptor ligands) Pancreas, disease IT (pancreatitis, treatment; preparation of diaminocyclobutenediones as CXC chemokine receptor ligands) IT Periodontium, disease (periodontitis, treatment; preparation of diaminocyclobutenediones as CXC chemokine receptor ligands) IT Peritoneum, disease (peritonitis, continuous ambulatory peritoneal dialysis associated treatment; preparation of diaminocyclobutenediones as CXC chemokine receptor

ligands)

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IT
     Lung, disease
         (pneumonitis, interstitial pneumononitis treatment; preparation of
        diaminocyclobutenediones as CXC chemokine receptor ligands)
IT
     Muscle, disease
         (polymyositis, treatment; preparation of diaminocyclobutenediones as CXC
        chemokine receptor ligands)
IT
     Surgery
         (postsurgical trauma treatment; preparation of diaminocyclobutenediones as
        CXC chemokine receptor ligands)
IT
     Parturition
         (premature, treatment; preparation of diaminocyclobutenediones as CXC
        chemokine receptor ligands)
IT
    Analgesics
     Angiogenesis inhibitors
     Anti-AIDS agents
     Anti-Alzheimer's agents
     Anti-inflammatory agents
     Anti-ischemic agents
     Antiarthritics
     Antiasthmatics
     Anticoagulants
     Antimalarials
     Antirheumatic agents
     Antitussives
     Antiulcer agents
     Antiviral agents
     Drug delivery systems
     Human
        (preparation of diaminocyclobutenediones as CXC chemokine receptor ligands)
TT
     Intestine, disease
         (pseudomembranous enterocolitis, treatment; preparation of
        diaminocyclobutenediones as CXC chemokine receptor ligands)
IT
     Arthritis
        (psoriatic arthritis, treatment; preparation of diaminocyclobutenediones as
        CXC chemokine receptor ligands)
IT
     Hypertension
        (pulmonary, treatment; preparation of diaminocyclobutenediones as CXC
        chemokine receptor ligands)
IT
     Eye, disease
        (retrolental fibroplasia, treatment; preparation of diaminocyclobutenediones
        as CXC chemokine receptor ligands)
IT
     Heart, disease
        (right ventricle, hypertrophy, treatment; preparation of
        diaminocyclobutenediones as CXC chemokine receptor ligands)
IT
     Shock (circulatory collapse)
        (septic, treatment; preparation of diaminocyclobutenediones as CXC chemokine receptor ligands)
IT
     Respiratory tract, disease
        (sinusitis, treatment; preparation of diaminocyclobutenediones as CXC
        chemokine receptor ligands)
IT
     Respiratory tract, disease
        (small airway disease, treatment; preparation of diaminocyclobutenediones as CXC chemokine receptor ligands)
     Brain, disease
        (stroke, treatment; preparation of diaminocyclobutenediones as CXC chemokine
        receptor ligands)
IT
     Shock (circulatory collapse)
        (toxic shock syndrome, treatment; preparation of diaminocyclobutenediones as
        CXC chemokine receptor ligands)
TT
     Brain, disease
     Injury
        (trauma, treatment; preparation of diaminocyclobutenediones as CXC chemokine receptor ligands)
IT
    AIDS (disease)
     Acne
     Alzheimer's disease
     Angiogenesis
     Arthritis
     Asthma
     Atherosclerosis
     Burn
     Celiac disease
     Common cold
     Cystic fibrosis
     Emphysema
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Encephalitis
     Gout
     Hepatitis
     Hypercapnia
     Hypoxia, animal
     Inflammation
     Lupus erythematosus
     Malaria
     Melanoma
     Meningitis
     Multiple sclerosis
     Neoplasm
     Osteoarthritis
     Osteoporosis
     Pain
     Pruritus
     Psoriasis
     Rheumatoid arthritis
     Sarcoidosis
     Strain
     Thrombosis
        (treatment; preparation of diaminocyclobutenediones as CXC chemokine
        receptor ligands)
IT
     Stomach, disease
        (ulcer, treatment; preparation of diaminocyclobutenediones as CXC chemokine
        receptor ligands)
IT
     Intestine, disease
        (ulcerative colitis, treatment; preparation of diaminocyclobutenediones as
        CXC chemokine receptor ligands)
IT
    Blood vessel, disease
        (vasculitis, treatment; preparation of diaminocyclobutenediones as CXC
        chemokine receptor ligands)
IT
    Respiratory tract, disease
        (ventilation perfusion mismatching, treatment; preparation of
        diaminocyclobutenediones as CXC chemokine receptor ligands)
     Infection
IT
        (viral, treatment; preparation of diaminocyclobutenediones as CXC chemokine
        receptor ligands)
IT
    Breathing (animal)
        (wheezing, treatment; preparation of diaminocyclobutenediones as CXC
        chemokine receptor ligands)
     Interleukin 8 receptors
IT
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (.alpha., modulators; preparation of diaminocyclobutenediones as CXC
        chemokine receptor ligands)
TТ
    Interleukin 8 receptors
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (.beta., modulators; preparation of diaminocyclobutenediones as CXC
        chemokine receptor ligands)
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     RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
     (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
        (claimed compound; preparation of diaminocyclobutenediones as CXC chemokine
        receptor ligands)
IT
     473728-84-6P
     RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic
     preparation); THU (Therapeutic use); BIOL (Biological study); PREP
     (Preparation); RACT (Reactant or reagent); USES (Uses)
        (preparation of diaminocyclobutenediones as CXC chemokine receptor ligands)
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     RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
     (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
     (Uses)
        (preparation of diaminocyclobutenediones as CXC chemokine receptor ligands)
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RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
   (preparation of diaminocyclobutenediones as CXC chemokine receptor ligands)
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RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
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   (preparation of diaminocyclobutenediones as CXC chemokine receptor ligands)
50-85-1 62-53-3, Phenylamine, reactions 67-36-7, 4-Phenoxybenzaldehyde
67-47-0, 5-Hydroxymethylfuran-2-carboxaldehyde 74-89-5, Methylamine,
reactions
           75-03-6, Iodoethane 75-16-1, Methylmagnesium bromide
75-31-0, Isopropylamine, reactions 75-64-9, tert-Butylamine, reactions 78-81-9, Isobutylamine 78-82-0, Isobutyronitrile 78-96-6 79-22-1,
Methyl chloroformate 79-44-7, Dimethylcarbamoyl chloride 79-46-9,
2-Nitropropane 85-38-1, 3-Nitrosalicylic acid 86-51-1,
2,3-Dimethoxybenzaldehyde 88-15-3, 2-Acetylthiophene 88-21-1,
2-Aminobenzenesulfonic acid 89-55-4, 5-Bromosalicylic acid 89-56-5,
5-Methylsalicylic acid 89-98-5, 2-Chlorobenzaldehyde 91-00-9,
Benzhydrylamine 92-54-6, 1-Phenylpiperazine 93-02-7,
2,5-Dimethoxybenzaldehyde
                            95-54-5, 1,2-Benzenediamine, reactions
95-55-6, 2-Aminophenol 98-01-1, Furfuraldehyde, reactions 98-03-3,
Thiophene-2-carboxaldehyde 98-09-9, Phenylsulfonyl chloride 98-80-6, Phenylboronic acid 98-86-2, Acetophenone, reactions 98-88-4, Benzoyl
chloride 98-98-6, Picolinic acid 99-03-6, 3-Acetylphenylamine
99-09-2, 3-Nitrobenzenamine 100-10-7, 4-Dimethylaminobenzaldehyde
100-46-9, Benzylamine, reactions 100-49-2, Cyclohexylmethanol
100-52-7, Benzaldehyde, reactions 100-58-3, Phenylmagnesium bromide
100-60-7, N-Cyclohexyl-N-methylamine 102-28-3, N-(3-
Aminophenyl)acetamide 103-49-1, N,N-Dibenzylamine 103-67-3, n-Benzyl-n-methylamine 105-41-9 106-41-2, p-Bromophenol 107-10-8,
n-Propylamine, reactions 108-09-8 108-23-6, Isopropyl chloroformate
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108-91-8, Cyclohexylamine, reactions 109-61-5, Propyl chloroformate
109-73-9, n-Butylamine, reactions 109-83-1, N-Methyl-2-hydroxyethylamine 109-89-7, Diethylamine, reactions 110-73-6 110-78-1, Propyl isocyanate
110-85-0, Piperazine, reactions 110-89-4, Piperidine, reactions 110-91-8, Morpholine, reactions 111-42-2, reactions 111-49-9, Azepane
118-92-3, 2-Aminobenzoic acid 120-14-9, 3,4-Dimethoxybenzaldehyde
120-43-4, 1-Piperazinecarboxylic acid ethyl ester 120-57-0, Piperonal 121-47-1, 3-Aminobenzenesulfonic acid 121-51-7, 3-Nitrobenzenesulfonyl
chloride 121-90-4, 3-Nitrobenzoyl chloride 121-92-6, 3-Nitrobenzoic
acid 122-09-8, Benzeneethanamine, .alpha.,.alpha.-dimethyl-
123-11-5, 4-Methoxybenzaldehyde, reactions 123-75-1, Pyrrolidine,
reactions 123-82-0, 2-Heptanamine 124-63-0, Methanesulfonyl chloride 124-68-5, 2-Amino-2-methylpropanol 135-00-2, 2-Benzoylthiophene
135-02-4, 2-Methoxybenzaldehyde 140-28-3, N,N'-Dibenzylethylenediamine
141-43-5, 2-Hydroxyethylamine, reactions 142-25-6 321-14-2,
5-Chlorosalicylic acid 344-25-2, D-Proline 349-43-9, Ethyl
2-fluoropropanoate 406-87-1, 4,4,4-Trifluorobutyraldehyde 420-90-6,
3-Bromo-3,3-difluoropropene 434-45-7 446-36-6, 5-Fluoro-2-nitrophenol
446-52-6, 2-Fluorobenzaldehyde 447-61-0, 2-Trifluoromethylbenzaldehyde 454-89-7, 3-Trifluoromethylbenzaldehyde 456-48-4, 3-Fluorobenzaldehyde 459-57-4, 4-Fluorobenzaldehyde 460-40-2, 3,3,3-Trifluoropropanal
492-41-1 498-60-2, 3-Furaldehyde 498-62-4, Thiophene-3-carboxaldehyde 498-94-2, 4-Piperidinecarboxylic acid 498-95-3, 3-Piperidinecarboxylic acid 503-29-7, Azetidine 513-49-5 527-69-5, Furan-2-carbonyl
chloride 529-20-4, 2-Methylbenzaldehyde 534-22-5, 2-Methylfuran 535-75-1, 2-Piperidinecarboxylic acid 543-82-8 554-14-3,
2-Methylthiophene 567-61-3, 2-Hydroxy-6-methylbenzoic acid
3-Amino-2-hydroxybenzoic acid 585-32-0, Benzenemethanamine, .alpha.,.alpha.-dimethyl- 585-70-6, 5-Bromo-2-furoic acid 587-04-2,
3-Chlorobenzaldehyde 591-20-8, m-Bromophenol 591-31-1, 3-Methoxybenzaldehyde 594-19-4, tert-Butyllithium 594-39-8
606-18-8, 2-Amino-3-nitrobenzoic acid 611-20-1, 2-Cyanophenol
611-24-5, 2-(Methylamino) phenol 613-69-4, 2-Ethoxybenzaldehyde 616-24-0, 1-Ethylpropylamine 616-44-4, 3-Methylthiophene 617-89-0, 2-Furanmethylamine 618-27-9 618-36-0, ..alpha..-MethylBenzylamine 620-02-0 621-31-8 624-78-2, Ethylmethylamine 625-45-6, Methoxyacetic acid 626-56-2, 3-Methylpiperidine 630-19-3, 2,2-Dimethylpropanal 651-70-7, 2-Trifluoroacetylthiophene 656-42-8 659-28-9,
4-Trifluoromethoxybenzaldehyde 698-63-5, 5-Nitrofuran-2-carboxaldehyde, reactions 704-38-1 765-30-0, Cyclopropylamine 811-49-4, Ethyllithium
917-54-4, Methyllithium 920-39-8, Isopropylmagnesium bromide 925-90-6, Ethylmagnesium bromide 927-77-5, Propylmagnesium bromide 930-27-8,
3-Methylfuran 931-15-7, cis-2-Aminocyclohexanol 931-50-0,
Cyclohexylmagnesium bromide 1003-03-8, Cyclopentylamine 1003-09-4, 2-Bromothiophene 1003-31-2, 2-Thiophenecarbonitrile 1011-11-6, trans-2-Phenylcyclohexylamine 1068-55-9, Isopropylmagnesium chloride
1072-67-9, 3-Amino-5-methylisoxazole 1122-60-7, Nitrocyclohexane
1192-58-1, 2-Pyrrolecarboxaldehyde, 1-methyl- 1204-60-0,
3-Phenylbenzaldehyde 1423-26-3, 3-Trifluoromethylbenzeneboronic acid
1436-60-8, Ethyl cis-2-Aminocyclohexanecarboxylate 1436-61-9, Ethyl
trans-2-Aminocyclohexanecarboxylate 1484-84-0, 2-Piperidineethanol 1692-15-5, Pyridine-4-boronic acid 1692-25-7, Pyridine-3-boronic acid
1700-37-4, 3-(Phenylmethoxy) benzaldehyde 1722-12-9, 2-Chloropyrimidine 1730-25-2, 2-Propenylmagnesium bromide 1738-68-7 1857-20-1
1874-23-3, Methyl 5-nitro-2-furoate 1885-14-9, Phenyl chloroformate
1888-75-1, Isopropyllithium 1899-24-7, 5-Bromofuran-2-carboxaldehyde
                 2032-35-1, Bromoacetaldehyde diethyl acetal 2039-67-0,
3-Methoxybenzeneethanamine 2133-40-6 2201-24-3, 1-
Phenylcyclohexylamine 2211-64-5, N-Hydroxycyclohexylamine
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Cyclopropyllithium 3082-64-2 3173-56-6, Benzyl isocyanate
3433-37-2, 2-(Hydroxymethyl)piperidine 3544-24-9, Benzamide, 3-amino-3674-13-3, Ethyl 2,3-dibromopropionate 3694-52-8, 3-Nitro-1,2-phenylenediamine 3731-53-1, 4-Pyridinylmethylamine 3789-59-1
3886-69-9 4083-57-2 4138-26-5, 3-Piperidinecarboxamide 4265-16-1,
Benzofuran-2-carboxaldehyde 4276-09-9, D-Valinol 4333-56-6,
Cyclopropyl bromide 4418-61-5, lH-Tetrazol-5-amine 4543-47-9, 3-Furanmethanamine 4606-65-9, 3-Piperidinemethanol 4747-21-1,
N-Methyl-N-isopropylamine 5006-62-2 5222-73-1, Dimethyl squarate
5231-87-8, Diethyl squarate 5271-67-0, 2-Thiophenecarbonyl chloride
5333-83-5, 2-Butanoyithiophene 5382-16-1, 4-Hydroxypiperidine
5452-35-7, Cycloheptylamine 5473-12-1 5680-79-5, Glycine methyl ester
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5691-15-6, cis-2-Aminocyclohexanemethanol
       hydrochloride
                                                                                               5691-21-4.
       trans-2-Aminocyclohexanemethanol 5779-95-3, 3,5-Dimethylbenzaldehyde
       5834-16-2, 3-Methylthiophene-2-carboxaldehyde 5856-62-2,
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            (preparation of diaminocyclobutenediones as CXC chemokine receptor ligands)
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        (preparation of diaminocyclobutenediones as CXC chemokine receptor ligands)
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Truong 09/960477

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        (preparation of diaminocyclobutenediones as CXC chemokine receptor ligands)
TΤ
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        (preparation of diaminocyclobutenediones as CXC chemokine receptor ligands)
ВM
     6739-22-6 HCAPLUS
     Ethanone, 2-cyclopropyl-1-phenyl- (9CI) (CA INDEX NAME)
     CH2-C-Ph
L42 ANSWER 7 OF 19 HCAPLUS COPYRIGHT 2004 ACS on STN
AN
    2004:589253 HCAPLUS
    141:123513
DN
ED
    Entered STN: 23 Jul 2004
TI
     2-piperidone derivatives as prostaglandin agonists
    Elworthy, Todd Richard
IN
PA
SO
    U.S. Pat. Appl. Publ., 26 pp.
     CODEN: USXXCO
DT
    Patent
     English
LA
IC
    ICM C07D043-02
     ICS A61K031-454; A61K031-445; C07D211-40
NCL
    514317000; 514326000; 546210000; 546216000
     26-3 (Biomolecules and Their Synthetic Analogs)
CC
     Section cross-reference(s): 1, 27, 63
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                                                                  DATE
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                               20040722
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CLASS
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                NCL
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    MARPAT 141:123513
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GI

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 R^{3}
 R^{2}
 R^{1}
 $X-E-A$
 R^{1}
 OH
 OH
 OH
 OH

AB 2-Piperidone derivs. I (n = 0-4; A = alkyl, aryl, heteroaryl, arylalkyl, arylcycloalkyl, cycloalkylalkyl, aryloxyalkyl; E = CHOH, or C(O); Y = CH2, CH:CH, arylene, heteroarylene, O, S(O)p (p = 0-2), NRa (Ra = H, alkyl); Z = CH2OH, CHO, tetrazole-5-yl, COORb (Rb = H, alkyl); R1, R2, R3, R4, R5, R6, R7, R8, R9, R10 = H, alkyl) and pharmaceutically acceptable salts, solvates, prodrugs, single isomers or racemic or non-racemic mixture of isomers thereof were prepared as selective prostaglandin EP4 agonists for the treatment of associated diseases. Thus, 6R-(1-ethoxyethoxymethyl)piperidin-2-one was treated with NaH,a nd 2-bromoethanol triisopropylsilyl ether, followed by pyridinium p-toluene sulfonic acid to give the alc. The alc. was oxidized to the aldehyde using Swern conditions, and treatment of the aldehyde with (4-cyclopropy1-2oxobutyl)phosphonic acid di-Me ester gave the alkene. Reduction of the ketone using (R)-2-methyl-CBS-oxazaborolidine followed by deprotection of the silylether gave the primary alc. Treatment of the alc. with .gamma.-thiobutyrolactone gave the Me ester which was treated with NaOH to give the desired II. The invention also provides methods for preparing, compns. comprising, and methods for using compds. of formula I. piperidone deriv prostaglandin EP4 agonist prepn; immunol disease asthma ST neuronal cell death treatment; thrombosis stroke hepatopathy abortion sexual dysfunction treatment; premature birth inflammation rheumatoid arthritis treatment; retinal neuropathy disorder hypertension fertility treatment; blood clotting disorder renal dysfunction treatment; dry eye ichthyosis glaucoma sleep disorder treatment; gastric ulcer preterm labor dysmenorrhea treatment; preeclampsia eclampsia eosinophil disorder treatment

IT Nerve, disease

(death, treatment of; preparation of 2-piperidone derivs. as selective prostaglandin EP4 agonists for the treatment of associated diseases) Prostaglandins

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(derivs.; preparation of 2-piperidone derivs. as selective prostaglandin EP4 agonists for the treatment of associated diseases)

T Blood coagulation

Sexual behavior

Sleep

IT

IT

IT

IT

IT

IT

(disorder, treatment of; preparation of 2-piperidone derivs. as selective prostaglandin EP4 agonists for the treatment of associated diseases)

Eve. disease

(dry, treatment of; preparation of 2-piperidone derivs. as selective prostaglandin EP4 agonists for the treatment of associated diseases) Skin, disease

(ichthyosis, treatment of; preparation of 2-piperidone derivs. as selective prostaglandin EP4 agonists for the treatment of associated diseases)

Cell death

(neuron, treatment of; preparation of 2-piperidone derivs. as selective prostaglandin EP4 agonists for the treatment of associated diseases)
Parturition

(premature, treatment of; preparation of 2-piperidone derivs. as selective prostaglandin EP4 agonists for the treatment of associated diseases)

Asymmetric synthesis and induction

Drug delivery systems

(preparation of 2-piperidone derivs. as selective prostaglandin EP4 agonists

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for the treatment of associated diseases)
IT
     Brain, disease
        (stroke, treatment of; preparation of 2-piperidone derivs. as selective
        prostaglandin EP4 agonists for the treatment of associated diseases)
TT
     Abortion
     Asthma
     Bone, disease
Dysmenorrhea
     Fertility
     Glaucoma (disease)
     Hypertension
     Inflammation
      Kidney, disease
     Liver, disease
     Osteoporosis
     Preeclampsia
     Rheumatoid arthritis
     Thrombosis
        (treatment of; preparation of 2-piperidone derivs. as selective
        prostaglandin EP4 agonists for the treatment of associated diseases)
TТ
     Prostanoid receptors
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (type EP4; preparation of 2-piperidone derivs. as selective prostaglandin
        EP4 agonists for the treatment of associated diseases)
     Stomach, disease
TT
        (ulcer, treatment of; preparation of 2-piperidone derivs. as selective
        prostaglandin EP4 agonists for the treatment of associated diseases)
IT
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     (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
        (preparation of 2-piperidone derivs. as selective prostaglandin EP4 agonists
       for the treatment of associated diseases)
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     chloroethane
                  768-35-4, 3-Fluorophenylboronic acid 1003-10-7,
     .gamma.-Thiobutyrolactone 1577-22-6, 5-Hexenoic acid 4202-14-6,
     Dimethyl(2-oxopropyl)phosphonate 4333-56-6, Bromocyclopropane
     7620-28-2 13095-73-3, 4-Mercaptobutyric acid 39746-15-1 40665-68-7
     77265-67-9, Methyl 4-(2-aminoethyl)benzoate 256382-39-5 425638-79-5
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                                493036-09-2
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        (preparation of 2-piperidone derivs. as selective prostaglandin EP4 agonists
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        (preparation of 2-piperidone derivs. as selective prostaglandin EP4 agonists
        for the treatment of associated diseases)
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     (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
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        (preparation of 2-piperidone derivs. as selective prostaglandin EP4 agonists
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    1-Piperidineheptanoic acid, 2-[3-(4'-hydroxy-2'-methyl[1,1'-biphenyl]-3-
CN
    yl)-3-oxopropyl]-6-oxo-, (2R)- (9CI) (CA INDEX NAME)
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Absolute stereochemistry.

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L42
     ANSWER 8 OF 19 HCAPLUS COPYRIGHT 2004 ACS on STN
     2004:513326 HCAPLUS
ΑN
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     141:71353
ED
     Entered STN: 25 Jun 2004
     Preparation of phenylacrylamides and phenylpropanamides as activators of
     soluble guanylate cyclase
     Anderson, Steven N.; Bhatia, Pramila; Kolasa, Teodozyj; Nakane, Masaki;
IN
     Patel, Meena V.; Rohde, Jeffrey J.; Xia, Zhiren; Zhang, Henry Q.
PΑ
     USA
so
     U.S. Pat. Appl. Publ., 34 pp.
     CODEN: USXXCO
DT
     Patent
LΑ
     English
IC
     ICM A61K031-55
     ICS A61K031-541; A61K031-5377; A61K031-496; A61K031-495; A61K031-4545;
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NCL
    514183000; 514217040; 514227800; 514235200; 514253010; 514317000;
     514318000; 514210200; 514341000; 540597000
     25-19 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)
     Section cross-reference(s): 1, 63
FAN.CNT 1
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PRAI US 2002-325297
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                       C07C323/62; C07D211/16; C07D211/34; C07D211/42;
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                       C07D211/46; C07D211/62; C07D213/70B
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     MARPAT 141:71353
GI
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 \mathbb{R}^{2}
 \mathbb{R}^{3}
 \mathbb{R}^{4}
 \mathbb{R}^{3}

AB Title compds. I [wherein X = C, N; R1 = (NR7R8) carbonylalkyl, (NR7R8) carbonylalkenyl; R2 = (cyclo) alkoxy, (cyclo) alkylthio, aryloxy, arylthio; with proviso; R3 = absent or H, alkenyl, alkoxy(carbonyl), alkyl(carbonyl), alkylthio, carboxy, CN, haloalkoxy, haloalkyl, halo,

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hydroxy(alkyl), mercapto(alkyl), NO2, NR9R10(carbonyl); R4-R6 =
independently H, alkenyl, alkoxy(carbonyl), alkyl(carbonyl), alkylthio,
carboxy, CN, haloalkoxy, haloalkyl, halo, hydroxy(alkyl), mercapto(alkyl),
NO2, NR9R10(carbonyl); R7 and R8= independently H, (hydroxy)alkyl, aryl(alkyl), cycloalkyl(alkyl), heterocyclyl(alkyl), (NHR11)alkyl; or
NR7R8 = (un)substituted heterocyclyl; R9 and R10 = independently H, alkyl;
R11 = H, alkoxy, alkyl(sulfonyl); and pharmaceutically acceptable salts,
esters, amides, or prodrugs thereof] were prepared as soluble guanylate cyclase (sGC) activators for increasing cGMP levels in a mammal. For example,
 (diethoxyphosphoryl) acetic acid was combined with
dicyclohexylcarbodiimide, N'-methylpolystyrene, and HOBt in DMA/DCM and
treated with 4-aminocyclohexanol to give 2-[(4-hydroxycyclohexyl)amino]-2-
oxoethylphosphonate. Reaction of the phosphonate with
2-(cyclohexylthio)benzaldehyde provided the acrylamide (E)-II. In a
guanylate cyclase assay measuring the formation of cyclic GMP from GTP,
the latter exhibited a mean basal efficacy of 353% at 100 .mu.M, a mean
efficacy of 506% when combined with 1 .mu.M of sodium nitro prusside (SNP), and a mean activation of 7.9 at 100 .mu.M. Results of the GC assay
show that compds. of the invention potentiate the activation of sGC by
nitric oxide (NO), resulting in increased levels of cGMP. Thus, I and
their pharmaceutical compns. are useful for treating disorders ameliorated
by increasing cGMP levels, such as sexual dysfunction, angina pectoris,
diastolic dysfunction, benign prostatic hyperplasia (BPH), incontinence,
endothelial dysfunction, thrombosis, diabetes, liver cirrhosis, cognitive
disorders, Alzheimer's disease, anxiety, stress, depression, sleep disorders, migraine, cerebral ischemia, brain trauma, pain, and memory and
learning disorders (no data).
phenyl acrylamide propanamide prepn guanylate cyclase activator;
phenylacrylamide phenylpropanamide prepn sGC activator sexual dysfunction
treatment; cardiovascular antithrombotic antidiabetic CNS agent
phenylacrylamide phenylpropanamide prepn
Proteins
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
(Uses)
    (GCAP (guanylate cyclase-activating protein); preparation of
   phenylacrylamides and phenylpropanamides as activators of sGC for
   treatment of disorders ameliorated by increasing cGMP levels)
Heart, disease
   (angina pectoris; preparation of phenylacrylamides and phenylpropanamides as activators of sGC for treatment of disorders ameliorated by increasing
   cGMP levels)
Antiarteriosclerotics
    (antiatherosclerotics; preparation of phenylacrylamides and
   phenylpropanamides as activators of sGC for treatment of disorders
   ameliorated by increasing cGMP levels)
Prostate gland, disease
    (benign hyperplasia; preparation of phenylacrylamides and
   phenylpropanamides as activators of sGC for treatment of disorders
   ameliorated by increasing cGMP levels)
Mental disorder
    (cognitive; preparation of phenylacrylamides and phenylpropanamides as
   activators of sGC for treatment of disorders ameliorated by increasing
   cGMP levels)
Adrenoceptor antagonists
Dopamine agonists
    (combination therapy; preparation of phenylacrylamides and
   phenylpropanamides as activators of sGC for treatment of disorders
   ameliorated by increasing cGMP levels)
Mental disorder
    (depression; preparation of phenylacrylamides and phenylpropanamides as
   activators of sGC for treatment of disorders ameliorated by increasing
   cGMP levels)
Blood pressure
   (diastolic, dysfunction; preparation of phenylacrylamides and
   phenylpropanamides as activators of sGC for treatment of disorders
   ameliorated by increasing cGMP levels)
Cognition
Learning
Memory, biological
Sexual behavior
   (disorder; preparation of phenylacrylamides and phenylpropanamides as
   activators of sGC for treatment of disorders ameliorated by increasing
   cGMP levels)
Blood vessel, disease
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IT

TT

```
(endothelium; preparation of phenylacrylamides and phenylpropanamides as
        activators of sGC for treatment of disorders ameliorated by increasing
        cGMP levels)
TT
     Sexual behavior
         (impotence; preparation of phenylacrylamides and phenylpropanamides as
        activators of sGC for treatment of disorders ameliorated by increasing
        cGMP levels)
TT
     Bladder, disease
         (incontinence; preparation of phenylacrylamides and
        phenylpropanamides as activators of sGC for treatment of disorders
        ameliorated by increasing cGMP levels)
TT
     Brain, disease
         (ischemia; preparation of phenylacrylamides and phenylpropanamides as
        activators of sGC for treatment of disorders ameliorated by increasing
        cGMP levels)
TT
     Headache
         (migraine; preparation of phenylacrylamides and phenylpropanamides as
        activators of sGC for treatment of disorders ameliorated by increasing
        cGMP levels)
     Alzheimer's disease
IT
     Analgesics
     Anti-Alzheimer's agents
     Anti-ischemic agents
     Antianginal agents
     Anticoagulants
     Antidepressants
     Antidiabetic agents
     Antimigraine agents
     Anxiety
     Anxiolytics
     Atherosclerosis
     Cardiovascular agents
     Cardiovascular system, disease
     Cirrhosis
     Cognition enhancers
     Diabetes mellitus
     Drug delivery systems
     Hypnotics and Sedatives
     Pain
     Stress, biological
     Thrombolytics
     Thrombosis
         (preparation of phenylacrylamides and phenylpropanamides as activators of
        sGC for treatment of disorders ameliorated by increasing cGMP levels)
IT
     Drug delivery systems
         (prodrugs; preparation of phenylacrylamides and phenylpropanamides as
        activators of sGC for treatment of disorders ameliorated by increasing
        cGMP levels)
     Brain, disease
IT
        (trauma; preparation of phenylacrylamides and phenylpropanamides as
        activators of sGC for treatment of disorders ameliorated by increasing
        cGMP levels)
TT
     9068-52-4, Phosphodiesterase 5
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
         (inhibitors, combination therapy; preparation of phenylacrylamides and
        phenylpropanamides as activators of sGC for treatment of disorders
     ameliorated by increasing cGMP levels)
955-63-5P, 2-[(4-Chlorophenyl)thio]-6-methylnicotinonitrile
1-[2-[(4-Chlorophenyl)thio]phenyl]ethanone 62351-50-2P,
IT
                                                                         41932-35-8P,
     2-[(4-Methylphenyl)thio]benzaldehyde
                                              74801-39-1P, 3-[2-[(4-
     Chlorophenyl)thio|phenyl|propanoic acid 280752-46-7P,
     2-[(2,4-Dichlorophenyl)thio]benzaldehyde
                                                    280752-47-8P
     (2E) -3-[2-[(2,4-Dichlorophenyl)thio]phenyl]-2-propenoic acid
     710959-93-6P, Ethyl 3-[2-[(4-chlorophenyl)thio]phenyl]acrylate 710959-95-8P, Methyl 3-[2-[(4-chlorophenyl)thio]phenyl]propanoate
     710960-09-1P, 2-[(4-Chlorophenyl)thio]-3-fluorobenzaldehyde
     710960-13-7P, 2-[(4-Chlorophenyl)thio]-5-fluorobenzaldehyde 710960-17-1P, 3-[2-[(4-Chlorophenyl)thio]phenyl]acrylic acid
     710960-19-3P, 1-[3-[2-[(4-Chlorophenyl)thio]phenyl]-2-propenoyl]-2-
                      710960-21-7P, 3-[2-[(4-Chlorophenyl)thio]phenyl]-N-(4-
     pyrrolidinone
     hydroxypentyl) -2-propenamide
                                      710960-26-2P, Ethyl 3-[2-[(4-
                                                710960-28-4P, (E)-3-[2-[(4-
710960-30-8P, (Z)-3-[2-[(4-
     chlorophenyl)thio]phenyl]-2-butenoate
     Chlorophenyl)thio]phenyl]-2-butenoate
     Chlorophenyl)thio]phenyl]-2-butenoate
                                                 710960-32-0P, 3-[2-[(4-
     Chlorophenyl)thio|phenyl]-2-butenoic acid
                                                    710960-34-2P,
     3-[2-[(4-Chlorophenyl)thio]phenyl]-N-methyl-N-(1-methyl-4-piperidinyl)-2-
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butenamide
                    710960-45-5P
                                    710960-74-0P, 2-[(4-Chlorophenyl)thio]-6-
     methylnicotinaldehyde 710960-78-4P, Ethyl (2E)-3-[2-[(2,4-
     dichlorophenyl)thio]phenyl]-2-propenoate 710961-05-0P,
     2-[(4-Chlorophenyl)thio]-6-fluorobenzaldehyde
                                                           710961-10-7P
     3-(2-Bromophenyl)-N-(4-hydroxybutyl)-2-propenamide 710961-37-8P,
     2-[(2,4-Dimethylphenyl)thio]benzaldehyde 710961-42-5P,
     2-[(3-Methylbutyl)thio]benzaldehyde
                                                710961-44-7P, (2E)-3-[2-[(3-
     Methylbutyl)thio]phenyl]-2-propenoic acid
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
      (Reactant or reagent)
         (intermediate; preparation of phenylacrylamides and phenylpropanamides as
         activators of sGC for treatment of disorders ameliorated by increasing
         cGMP levels)
     86-01-1, GTP 7665-99-8, CGMP 9054-75-5, 010102-43-9, Nitric oxide, biological studies
IT
                                          9054-75-5, Guanylate cyclase
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
         (preparation of phenylacrylamides and phenylpropanamides as activators of
         sGC for treatment of disorders ameliorated by increasing cGMP levels)
     78-96-6, 1-Amino-2-propanol 106-45-6, 4-Methylbenzenethiol 106-54-7,
     4-Chlorobenzenethiol 109-73-9, 1-Butanamine, reactions 156-87-6, 3-Amino-1-propanol 372-66-7, 6-Amino-2-methyl-2-heptanol 437-81-0,
     2,6-Difluorobenzaldehyde 446-52-6, 2-Fluorobenzaldehyde
                                                                         541-31-1,
     3-Methyl-1-butanethiol 552-89-6, 2-Nitrobenzaldehyde 614-21-1,
     2-Nitroacetophenone 616-45-5, 2-Pyrrolidinone 622-26-4,
     2-(4-Piperidinyl)ethanol 696-63-9, 4-Methoxybenzenethiol 86
Triethyl phosphonoacetate 1122-41-4, 2,4-Dichlorobenzenethiol
                                                                           867-13-0,
     2508-29-4, 5-Amino-1-pentanol 2646-90-4, 2,5-Difluorobenzaldehyde 2646-91-5, 2,3-Difluorobenzaldehyde 3095-95-2,
     (Diethoxyphosphoryl)acetic acid 5382-16-1, 4-Piperidinol 6850
2-Aminocyclohexanol 6850-65-3, 4-Aminocyclohexanol 6859-99-0,
     3-Piperidinol 7345-79-1, (2E)-3-(2-Bromophenyl)-2-propenoic acid
     13258-63-4, 4-(2-Aminoethyl)pyridine 13325-10-5, 4-Amino-1-butanol
     13552-21-1, 1-Amino-2-butanol 13616-82-5, 2,4-Dimethylbenzenethiol 28900-10-9, 2-Chloro-3-cyano-6-methylpyridine 36943-39-2,
     2-(Phenylthio)benzaldehyde 39546-32-2, 4-Piperidinecarboxamide
     39884-48-5, 4-Amino-2-butanol 53606-32-9, 2-(Isopropylthio)benzaldehyde
     73579-08-5, 1-Methyl-4-(methylamino)piperidine 90133-56-5,
     2-[(3-Methylphenyl)thio]benzaldehyde 107572-07-6, 2-[(4-
     Chlorophenyl)thio]benzaldehyde 127905-37-7, 2-[(3-
     Methoxyphenyl)thio]benzaldehyde 128958-85-0, 2-[(4-
                                          319454-93-8, 5-Methoxy-2-[(4-
338982-20-0, 2-[(4-
     Methoxyphenyl) thio] benzaldehyde
     methylphenyl)thio|benzaldehyde
     Methylphenyl)thio]nicotinaldehyde
                                              338982-28-8, 2-[(4-
     Chlorophenyl) thio nicotinal dehyde
                                              338982-29-9, 2-[(2,4-
     Dichlorophenyl)thio]nicotinaldehyde 338982-30-2, 2-[(4-
     Bromophenyl)thio]nicotinaldehyde 338982-31-3, 2-
     (Phenylthio) nicotinal dehyde
                                      338982-32-4, 2-[(2-
     Chlorophenyl)thio]nicotinaldehyde 503065-08-5, 2-
     (Cyclohexylthio) benzaldehyde 643763-14-8, 2-[(4-Fluorophenyl) thio] benzaldehyde 643763-25-1, 2-(Cyclopentylthio) benzaldehyde 643763-27-3, 2-(Isobutylthio) benzaldehyde
     710960-62-6 710960-70-6, 2-(Pentylthio)benzaldehyde
     RL: RCT (Reactant); RACT (Reactant or reagent)
         (preparation of phenylacrylamides and phenylpropanamides as activators of sGC for treatment of disorders ameliorated by increasing cGMP levels)
TΫ́
     713131-93-2P
     RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic
     preparation); THU (Therapeutic use); BIOL (Biological study); PREP
     (Preparation); RACT (Reactant or reagent); USES (Uses)
         (sGC activator; preparation of phenylacrylamides and phenylpropanamides as
         activators of sGC for treatment of disorders ameliorated by increasing
         cGMP levels)
IT
     710959-91-4P, 3-[2-[(4-Chlorophenyl)thio]phenyl]-N-(4-
     hydroxybutyl)propanamide 710959-98-1P, 3-[2-[(4-
     Chlorophenyl) thio] phenyl] -N- (5-hydroxy-1,5-dimethylhexyl) propanamide
     710960-00-2P, 3-[2-[(4-Chlorophenyl)thio]phenyl]-N-(5-
     hydroxypentyl)propanamide 710960-01-3P, 3-[2-[(4-Chlorophenyl)thio]phenyl]-N-(4-hydroxycyclohexyl)propanamide
     710960-03-5P, N-(4-Hydroxybuty1)-3-[2-[(4-methylpheny1)thio]pheny1]propana
             710960-05-7P, 3-[2-[(4-Chlorophenyl)thio]phenyl]-N-[4-
     [(methylsulfonyl)amino]butyl]propanamide
                                                     710960-07-9P,
     3-[2-[(4-Chlorophenyl)thio]-3-fluorophenyl]-N-(4-hydroxybutyl)propanamide
     710960-11-5P, 3-[2-[(4-Chlorophenyl)thio]-5-fluorophenyl]-N-(4-
     hydroxybutyl)propanamide 710960-15-9P, 3-[2-[(4-
     Chlorophenyl) thio] phenyl] -N- (4-hydroxypentyl) propanamide
                                                                       710960-23-9P,
     3-[2-[(4-Chlorophenyl)thio]phenyl]-N-methyl-N-(1-methyl-4-
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piperidinyl)butanamide
                               710960-36-4P, 3-[2-[(4-Chlorophenyl)thio]phenyl]-
     N-[2-(4-pyridinyl)ethyl]butanamide 710960-38-6P, 3-[2-[(4-
     Chlorophenyl) thio phenyl] -N-[4-(methoxyamino) butyl] propanamide
     710960-40-0P, 3-[2-[(4-Chlorophenyl)thio]phenyl]-N-[4-
     (methylamino) butyl] propanamide
                                        710960-42-2P, 3-[2-[(4-
     Chlorophenyl) thio] phenyl] -N-[5-(methylamino) pentyl] propanamide
     710960-57-9P
                    710960-60-4P
                                    710960-64-8P
                                                    710960-76-2P,
     (2E) -3-[2-[(2,4-Dichlorophenyl)thio]phenyl]-N-(4-hydroxybutyl)-2-
     propenamide 710960-83-1P, (2E)-3-[2-[(4-Chlorophenyl)thio]phenyl]-N-(5-hydroxy-1,5-dimethylhexyl)-2-propenamide 710960-85-3P,
     (2E) -3-[2-[(4-Chlorophenyl)thio]phenyl]-N-ethyl-2-propenamide
     710960-87-5P, (2E)-N-Butyl-3-[2-[(4-chlorophenyl)thio]phenyl]-2-propenamide 710960-89-7P, (2E)-3-[2-[(4-Chlorophenyl)thio]phenyl]-N-(4-
     propenamide
     hydroxybutyl) -2-propenamide 710960-91-1P, (2E) -3-[2-[(4-
     Chlorophenyl) thio ] phenyl] -N- (5-hydroxypentyl) -2-propenamide
     710960-93-3P, (2E)-N-(4-Hydroxybutyl)-3-[2-[(4-methylphenyl)thio]phenyl]-2-
                    710960-95-5P, (2E)-3-[2-[(4-Chlorophenyl)thio]phenyl]-N-(2-
-2-propenamide 710960-97-7P, (2E)-3-[2-[(4-
     propenamide
     hydroxypropyl)-2-propenamide
     Chlorophenyl) thio phenyl] -N- (3-hydroxybutyl) -2-propenamide
     (2E) -3-[2-[(4-Chlorophenyl)thio]phenyl]-N-(2-hydroxybutyl)-2-propenamide
                    710961-03-8P, (2E)-3-[2-[(4-Chlorophenyl)thio]-6-
     710961-01-6P
     fluorophenyl]-N-(4-hydroxybutyl)-2-propenamide 710961-08-3P,
     (2E) -N-(4-Hydroxybutyl) -3-[2-[(4-methoxyphenyl)thio]phenyl]-2-propenamide
     710961-22-1P 710961-24-3P
                                    710961-26-5P
                                                    710961-28-7P 710961-30-1P
     710961-35-6P, (2E)-3-[2-[(2,4-Dimethylphenyl)thio]phenyl]-N-(5-hydroxy-1,5-
     dimethylhexyl)-2-propenamide 710961-39-0P, (2E)-3-[2-[(4-
     Chlorophenyl) thio] -5-fluorophenyl] -N-(4-hydroxybutyl) -2-propenamide
                    710961-48-1P, (2E)-N-(3-Hydroxypropyl)-3-[2-[(3-
     methylbutyl)thio]phenyl]-2-propenamide 710961-51-6P,
     (2E) -N-(4-Hydroxybutyl)-3-[2-[(3-methylbutyl)thio]phenyl]-2-propenamide
     710961-53-8P, (2E)-N-(5-Hydroxypentyl)-3-[2-[(3-methylbutyl)thio]phenyl]-2-
     propenamide 710961-55-0P, 1-[(2E)-3-[2-[(3-Methylbutyl)thio]phenyl]-2-
     propenoy1]-4-piperidinol 710961-57-2P, 1-[(2E)-3-[2-[(3-Methylbuty1)thio]pheny1]-2-propenoy1]-3-piperidinol 7109
                                                             710961-59-4P.
     2-[1-[(2E)-3-[2-[(3-Methylbutyl)thio]phenyl]-2-propenoyl]-4-
     piperidinyl]ethanol
                           710961-61-8P, 1-[(2E)-3-[2-[(3-
     Methylbutyl)thio]phenyl]-2-propenoyl]-4-piperidinecarboxamide
                     713131-94-3P
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     RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
     (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
     (Uses)
        (sGC activator; preparation of phenylacrylamides and phenylpropanamides as
        activators of sGC for treatment of disorders ameliorated by increasing
        cGMP levels)
     614-21-1, 2-Nitroacetophenone
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (preparation of phenylacrylamides and phenylpropanamides as activators of
        sGC for treatment of disorders ameliorated by increasing cGMP levels)
     614-21-1 HCAPLUS
     Ethanone, 2-nitro-1-phenyl- (9CI) (CA INDEX NAME)
Ph-C-CH2-NO2
L42 ANSWER 9 OF 19 HCAPLUS COPYRIGHT 2004 ACS on STN
     2004:451668 HCAPLUS
     141:23213
     Entered STN: 04 Jun 2004
     Preparation of 3,4-di-substituted cyclobutene-1,2-diones as CXC-chemokine
     Taveras, Arthur G.; Aki, Cynthia J.; Bond, Richard W.; Chao, Jianping;
     Dwyer, Michael; Ferreira, Johan A.; Chao, Jianhua; Yu, Younong; Baldwin,
     John J.; Kaiser, Bernd; Li, Ge; Merritt, J. Robert; Biju, Purakkattle J.;
     Nelson, Kingsley H.; Rokosz, Laura L.
     Schering Corporation, USA
     U.S. Pat. Appl. Publ., 331 pp., Cont.-in-part of U.S. Ser. No. 208,412.
     CODEN: USXXCO
     Patent
     English
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TC
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     Section cross-reference(s): 1, 25, 63
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                          C07D307/68; C07D307/81; C07D307/82B; C07D307/83;
                          C07D317/46; C07D319/18; C07D333/20; C07D333/36;
                         C07D405/12; C07D409/12; C07D409/12; C07D409/14;
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                         C07D307/68; C07D307/81; C07D307/82B; C07D307/83;
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                         C07D405/12; C07D409/12; C07D409/12; C07D409/14; C07D413/12; C07D413/14
     MARPAT 141:23213
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II

Truong 09/960477 Title compds. I (A = (un) substituted heterocycle, heterocyclylalkyl, AB heteroaryl, heteroarylalkyl, cycloalkyl, etc.; B = (un) substituted aryl, heteroaryl, heterocycle, heteroarylarene, etc.], or a pharmaceutically acceptable salt or solvate thereof, are prepared and disclosed as cxc-chemokine receptor ligands. Thus, II was prepared by substitution of (dimethylaminocarbonylhydroxyphenylamino) (ethoxy) cyclobutenedione [preparation given] with (R)-2-amino-N,3-dimethylbutanamide monohydrochloride [preparation given]. Compds. of the invention demonstrated an IC50 value of < 20 .mu.M in CXCR1 SPA assay and < 5 .mu.M in CXCR2 SPA assay. I are useful for the treatment of chemokine-mediated diseases such as acute and chronic inflammatory disorders and cancer. cyclobutenedione prepn cxc chemokine receptor ligand antiinflammatory antitumor; alkylaminoarylamino cyclobutenedione stereoselective prepn cxc chemokine receptor ligand IT Respiratory tract, disease (Adult; stereoselective preparation of disubstituted cyclobutenediones as cxc-chemokine receptor ligands) IT Neoplasm (CNS tumor; stereoselective preparation of disubstituted cyclobutenediones as cxc-chemokine receptor ligands) IT Chemokine receptors RL: BSU (Biological study, unclassified); BIOL (Biological study) (CXCR1; stereoselective preparation of disubstituted cyclobutenediones as cxc-chemokine receptor ligands) TΤ Chemokine receptors RL: BSU (Biological study, unclassified); BIOL (Biological study) (CXCR2; stereoselective preparation of disubstituted cyclobutenediones as cxc-chemokine receptor ligands) TΨ Intestine, disease (Crohn's; stereoselective preparation of disubstituted cyclobutenediones as cxc-chemokine receptor ligands) IT Sarcoma (Kaposi's; stereoselective preparation of disubstituted cyclobutenediones as cxc-chemokine receptor ligands) Hepatitis (acute, acute alc. hepatitis; stereoselective preparation of disubstituted cyclobutenediones as cxc-chemokine receptor ligands) TT Respiratory distress syndrome (acute; stereoselective preparation of disubstituted cyclobutenediones as cxc-chemokine receptor ligands) Liver, disease IT (alc.; stereoselective preparation of disubstituted cyclobutenediones as cxc-chemokine receptor ligands) IT Transplant rejection (allotransplant; stereoselective preparation of disubstituted cyclobutenediones as cxc-chemokine receptor ligands) IT (angiogenic; stereoselective preparation of disubstituted cyclobutenediones

as cxc-chemokine receptor ligands)

TT Antiarteriosclerotics

(antiatherosclerotics; stereoselective preparation of disubstituted cyclobutenediones as cxc-chemokine receptor ligands)

TТ Cytotoxic agents

(antimetabolites, co-drugs; stereoselective preparation of disubstituted cyclobutenediones as cxc-chemokine receptor ligands for treating cancer in combination with other anticancer agents)

IT Dermatitis

(atopic; stereoselective preparation of disubstituted cyclobutenediones as cxc-chemokine receptor ligands)

IT Bronchi, disease

> (bronchiectasis; stereoselective preparation of disubstituted cyclobutenediones as cxc-chemokine receptor ligands)

TT Bronchi, disease

(bronchiolitis; stereoselective preparation of disubstituted cyclobutenediones as cxc-chemokine receptor ligands)

IT Burn

(burn therapy; stereoselective preparation of disubstituted cyclobutenediones as cxc-chemokine receptor ligands)

IT Stomach, neoplasm

(carcinoma; stereoselective preparation of disubstituted cyclobutenediones as cxc-chemokine receptor ligands)

IT Bronchi, disease

(chronic bronchitis; stereoselective preparation of disubstituted cyclobutenediones as cxc-chemokine receptor ligands)

IT Lung, disease

(chronic obstructive; stereoselective preparation of disubstituted cyclobutenediones as cxc-chemokine receptor ligands) IT Alkylating agents, biological (co-drugs; stereoselective preparation of disubstituted cyclobutenediones as exc-chemokine receptor ligands for treating cancer in combination with other anticancer agents) IT Natural products Steroids, biological studies RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (co-drugs; stereoselective preparation of disubstituted cyclobutenediones as exc-chemokine receptor ligands for treating cancer in combination with other anticancer agents) Allergy IT (delayed hypersensitivity; stereoselective preparation of disubstituted cyclobutenediones as cxc-chemokine receptor ligands) IT Eve. disease (diabetic retinopathy; stereoselective preparation of disubstituted cyclobutenediones as cxc-chemokine receptor ligands) IT (disease, subarachnoid hemorrhage; stereoselective preparation of disubstituted cyclobutenediones as cxc-chemokine receptor ligands) IT Intestine, disease (duodenum, ulcer; stereoselective preparation of disubstituted cyclobutenediones as cxc-chemokine receptor ligands) IT Breathing (animal) (dyspnea; stereoselective preparation of disubstituted cyclobutenediones as cxc-chemokine receptor ligands) Transplant and Transplantation (early transplantation; stereoselective preparation of disubstituted cyclobutenediones as cxc-chemokine receptor ligands) IT Esophagus, disease (esophagitis; stereoselective preparation of disubstituted cyclobutenediones as cxc-chemokine receptor ligands) TT Lung, disease (fibrosis; stereoselective preparation of disubstituted cyclobutenediones as cxc-chemokine receptor ligands) TT Ginqiva, disease (gingivitis; stereoselective preparation of disubstituted cyclobutenediones as cxc-chemokine receptor ligands) Kidney, disease (glomerulonephritis; stereoselective preparation of disubstituted cyclobutenediones as cxc-chemokine receptor ligands) IT Tongue, disease (glossitis; stereoselective preparation of disubstituted cyclobutenediones as cxc-chemokine receptor ligands) IT Transplant and Transplantation (graft-vs.-host reaction; stereoselective preparation of disubstituted cyclobutenediones as cxc-chemokine receptor ligands) IT Sepsis (gram neg.; stereoselective preparation of disubstituted cyclobutenediones as cxc-chemokine receptor ligands) TT Skin, disease (herpes; stereoselective preparation of disubstituted cyclobutenediones as cxc-chemokine receptor ligands) TΤ Hormones, animal, biological studies RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (hormones and anti-hormones as co-drugs; stereoselective preparation of disubstituted cyclobutenediones as cxc-chemokine receptor ligands for treating cancer in combination with other anticancer agents) TT Respiratory tract, disease (hyperresponsiveness; stereoselective preparation of disubstituted cyclobutenediones as cxc-chemokine receptor ligands) IT Allergy (hypersensitivity; stereoselective preparation of disubstituted cyclobutenediones as cxc-chemokine receptor ligands) IT Hypoxia, animal (hypoxemia; stereoselective preparation of disubstituted cyclobutenediones as cxc-chemokine receptor ligands) IT Eye, disease (inflammation; stereoselective preparation of disubstituted cyclobutenediones as cxc-chemokine receptor ligands) Intestine, disease IT (inflammatory; stereoselective preparation of disubstituted cyclobutenediones as cxc-chemokine receptor ligands)

Search done by Noble Jarrell

(injury; stereoselective preparation of disubstituted cyclobutenediones as

IT

Reperfusion

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cxc-chemokine receptor ligands)
ΙT
     Lung, disease
        (interstitial pneumonitis; stereoselective preparation of disubstituted
        cyclobutenediones as cxc-chemokine receptor ligands)
IT
     Brain, disease
     Heart, disease
        (ischemia; stereoselective preparation of disubstituted cyclobutenediones as
        cxc-chemokine receptor ligands)
IT
     Eye, disease
         (macula, degeneration; stereoselective preparation of disubstituted
        cyclobutenediones as cxc-chemokine receptor ligands)
IΤ
     Angiogenesis
        (neovascularization, eye; stereoselective preparation of disubstituted
        cyclobutenediones as cxc-chemokine receptor ligands)
     Eye, disease
        (neovascularization; stereoselective preparation of disubstituted
        cyclobutenediones as cxc-chemokine receptor ligands)
IT
     Lung, neoplasm
        (non-small-cell carcinoma; stereoselective preparation of disubstituted
        cyclobutenediones as cxc-chemokine receptor ligands)
TT
     Pancreas, disease
        (pancreatitis; stereoselective preparation of disubstituted
        cyclobutenediones as cxc-chemokine receptor ligands)
IT
     Periodontium, disease
        (periodontitis; stereoselective preparation of disubstituted
        cyclobutenediones as cxc-chemokine receptor ligands)
IT
     Peritoneum, disease
        (peritonitis, associated with CAPD; stereoselective preparation of disubstituted cyclobutenediones as cxc-chemokine receptor ligands)
TΤ
     Muscle, disease
        (polymyositis; stereoselective preparation of disubstituted
        cyclobutenediones as cxc-chemokine receptor ligands)
     Parturition
        (premature; stereoselective preparation of disubstituted cyclobutenediones
        as cxc-chemokine receptor ligands)
     Intestine, disease
        (pseudomembranous enterocolitis; stereoselective preparation of
        disubstituted cyclobutenediones as cxc-chemokine receptor ligands)
IT
     Arthritis
        (psoriatic arthritis; stereoselective preparation of disubstituted
        cyclobutenediones as cxc-chemokine receptor ligands)
IT
     Hypertension
        (pulmonary; stereoselective preparation of disubstituted cyclobutenediones
        as cxc-chemokine receptor ligands)
IT
     Kidney
        (renal reperfusion injury; stereoselective preparation of
        disubstituted cyclobutenediones as cxc-chemokine receptor ligands)
IT
        (reperfusion injury; stereoselective preparation of disubstituted
        cyclobutenediones as cxc-chemokine receptor ligands)
IT
     Eve, disease
        (retrolental fibroplasia; stereoselective preparation of disubstituted
        cyclobutenediones as cxc-chemokine receptor ligands)
     Heart, disease
        (right ventricle, hypertrophy; stereoselective preparation of disubstituted
        cyclobutenediones as cxc-chemokine receptor ligands)
     Shock (circulatory collapse)
        (septic; stereoselective preparation of disubstituted cyclobutenediones as
        cxc-chemokine receptor ligands)
TT
     Respiratory tract, disease
        (sinusitis, chronic sinusitis; stereoselective preparation of disubstituted
        cyclobutenediones as cxc-chemokine receptor ligands)
TΤ
     AIDS (disease)
     Acne
     Alzheimer's disease
     Angiogenesis inhibitors
     Anti-AIDS agents
     Anti-Alzheimer's agents
     Anti-inflammatory agents
     Anti-ischemic agents
     Antiarthritics
     Antiasthmatics
     Anticoagulants
     Antihypertensives
     Antimalarials
     Antitumor agents
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Antiulcer agents
Antiviral agents
Arteriosclerosis
Arthritis
Asthma
Asymmetric synthesis and induction
Atherosclerosis
Celiac disease
Common cold
Cough
Cystic fibrosis
Emphysema
Encephalitis
Gout
Herpesviridae
Human
Human respiratory syncytial virus
Hypercapnia
Hypoxia, animal
Immunosuppressants
Inflammation
Injury
Lupus erythematosus
Malaria
Melanoma
Meningitis
Multiple organ failure
Multiple sclerosis
Osteoarthritis
Pruritus
Psoriasis
Sarcoidosis
Strain
Thrombosis
    (stereoselective preparation of disubstituted cyclobutenediones as
   cxc-chemokine receptor ligands)
Brain, disease
    (stroke; stereoselective preparation of disubstituted cyclobutenediones as
   cxc-chemokine receptor ligands)
Lung, disease
    (surgical lung volume reduction; stereoselective preparation of disubstituted
   cyclobutenediones as cxc-chemokine receptor ligands)
Shock (circulatory collapse)
   (toxic shock syndrome; stereoselective preparation of disubstituted
   cyclobutenediones as cxc-chemokine receptor ligands)
Brain, disease
Injury
   (trauma; stereoselective preparation of disubstituted cyclobutenediones as
   cxc-chemokine receptor ligands)
Stomach, disease
    (ulcer; stereoselective preparation of disubstituted cyclobutenediones as
   cxc-chemokine receptor ligands)
Intestine, disease
   (ulcerative colitis; stereoselective preparation of disubstituted
   cyclobutenediones as cxc-chemokine receptor ligands)
Blood vessel, disease
   (vasculitis, CNS vasculitis; stereoselective preparation of disubstituted
   cyclobutenediones as cxc-chemokine receptor ligands)
Hepatitis
Infection
   (viral; stereoselective preparation of disubstituted cyclobutenediones as
   cxc-chemokine receptor ligands)
Breathing (animal)
   (wheezing; stereoselective preparation of disubstituted cyclobutenediones as
   cxc-chemokine receptor ligands)
Interleukin 8 receptors
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(.alpha.; stereoselective preparation of disubstituted cyclobutenediones as
   cxc-chemokine receptor ligands)
Interleukin 8 receptors
RL: BSU (Biological study, unclassified); BIOL (Biological study)
   (.beta.; stereoselective preparation of disubstituted cyclobutenediones as
   cxc-chemokine receptor ligands)
473729-73-6P
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic
preparation); THU (Therapeutic use); BIOL (Biological study); PREP
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IT

IT

TΤ

ΙT

ΙT

TT

IT

IT

IT

IT

(Preparation); RACT (Reactant or reagent); USES (Uses) (drug candidate; stereoselective preparation of disubstituted

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cyclobutenediones as cxc-chemokine receptor ligands)
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     RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
     (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
     (Uses)
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(drug candidate; stereoselective preparation of disubstituted cyclobutenediones as cxc-chemokine receptor ligands)

IT

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RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
(Uses)
   (drug candidate; stereoselective preparation of disubstituted
   cyclobutenediones as cxc-chemokine receptor ligands)
473729-94-1P
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473729-99-6P
               473730-00-6P
                              473730-01-7P
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473730-04-0P
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(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
(Uses)
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RL: PUR (Purification or recovery); RCT (Reactant); SPN (Synthetic
preparation); PREP (Preparation); RACT (Reactant or reagent)
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50-85-1 62-53-3, Benzenamine, reactions
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                                           67-36-7 67-47-0
2-Propanol, reactions 75-31-0, 2-Propanamine, reactions
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reactions 77-55-4 78-81-9 78-82-0 78-96-6 79-44-7
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85-38-1 88-15-3 89-55-4 89-98-5 91-00-9 92-54-6 1,2-Benzenediamine, reactions 95-55-6 98-01-1, 2-Furan
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reactions 98-03-3, 2-Thiophenecarboxaldehyde 98-09-9, Benzenesulfonyl chloride 98-80-6 98-88-4, Benzoyl chloride 98-98-6, 2-Pyridinecarboxylic acid 99-03-6 99-05-8 99-09-2 100-46-9,
 Benzenemethanamine, reactions 100-49-2, Cyclohexanemethanol 100-52-7,
 Benzaldehyde, reactions 100-58-3 100-60-7 102-28-3 103-49-1, Dibenzylamine 103-67-3 105-41-9 106-41-2 107-10-8, 1-Propanamine,
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109-61-5 109-73-9, 1-Butanamine, reactions 109-83-1 110-73-6 110-78-1 110-85-0, Piperazine, reactions 110-89-4, Piperidine, reactions 110-91-8, Morpholine, reactions 111-42-2, reactions 111-49-9 118-92-3 120-21-8 120-43-4 120-57-0, 1,3-Benzodioxole-5-
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 reactions 123-38-6, Propanal, reactions 123-75-1, Pyrrolidine, reactions 123-82-0, 2-Heptanamine 124-68-5 135-00-2 140-28-3
142-25-6 321-14-2 344-25-2, D-Proline 349-43-9 406-87-1 420-90-6
434-45-7 446-36-6 446-52-6 447-61-0 454-89-7 456-48-4 459-57-4
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 3-Pentanamine 616-44-4 617-89-0, 2-Furanmethanamine 618-27-9
 618-36-0 620-02-0 621-31-8 625-45-6 626-56-2 630-19-3 656-42-8
659-28-9 704-38-1 765-30-0, Cyclopropanamine 920-39-8 927-77-5 930-27-8 931-15-7 931-50-0 1003-03-8, Cyclopentanamine 1003-09-4
1003-31-2, 2-Thiophenecarbonitrile 1011-11-6 1013-88-3 1072-67-9 1120-87-2 1122-60-7, Nitrocyclohexane 1204-60-0, [1,1'-Biphenyl]-3-carboxaldehyde 1423-26-3 1436-60-8 1436-61-9 1484-84-0,
2-Piperidineethanol 1692-15-5 1692-25-7 1700-37-4 1722-12-9 1730-25-2 1738-68-7 1857-20-1 1885-14-9 1888-75-1 1899-24-7 2026-48-4 2032-35-1 2133-40-6 2201-24-3 2211-64-5 2402-95-1
 2516-34-9, Cyclobutanamine 2562-38-1, Nitrocyclopentane
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2627-86-3 2689-59-0 2762-32-5, 2-Piperazinecarboxylic acid 2786-07-4
2799-21-5 2941-20-0 2987-16-8 3002-94-6 3082-64-2 3234-64-8 3405-77-4 3433-37-2, 2-Piperidinemethanol 3544-24-9 3674-13-3 3694-52-8 3731-53-1, 4-Pyridinemethanamine 3789-59-1 3886-69-9 4083-57-2 4138-26-5, 3-Piperidinecarboxamide 4265-16-1,
2-Benzofurancarboxaldehyde 4276-09-9 4333-56-6, Cyclopropyl bromide
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5680-79-5 5691-15-6 5691-21-4 5779-95-3 5832-01-9 5834-16-2

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6250-76-6 6287-38-3 6309-16-6 6321-23-9 6542-60-5,
Cyclopropaneacetonitrile 6662-17-5 6859-99-0, 3-Piperidinol 6921-34-2 6973-60-0 6982-39-4 7003-32-9 7051-34-5 7210-75-5 7283-96-7 10200-59-6, 2-Thiazolecarboxaldehyde 10277-74-4 13250-12-9 13349-82-1 13515-93-0 13679-70-4 13679-75-9 13734-41-3 13889-98-0 13952-84-6, 2-Butanamine 14305-17-0 14321-27-8 14338-36-4 15231-41-1 15433-83-7 16114-47-9 16466-97-0
16596-41-1, 1-Pyrrolidinamine 16751-59-0, 4-Heptanamine 17249-80-8
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1H-Indazol-7-amine 21685-51-8 21906-17-2 21921-76-6 22078-59-7
22838-58-0 23074-10-4 23356-96-9 23357-46-2 23357-52-0 24247-77-6 24962-75-2 27757-85-3, 2-Thiophenemethanamine 27757-86-4, 3-Thiophenemethanamine 27948-38-5 28022-43-7 28292-43-5 29138-64-5 30389-18-5 30543-88-5 30543-89-6 30543-90-9 32085-88-4 34035-04-6 34328-61-5 34566-04-6
34701-33-2
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                                                                35748-36-8
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37577-28-9
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40114-49-6
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55661-33-1, 2-Thiazolemethanamine 56286-73-8 57260-67-0 57260-71-6
59260-76-3 59915-99-0 60289-68-1 chloride 63493-28-7, 2-Pentanamine
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3-Benzofuranmethanamine 177971-32-3 180736-67-8
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216394-07-9
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6315-55-5P
             6560-72-1P 6668-27-5P 6739-22-6P 10035-16-2P,
5-Benzofurancarboxaldehyde
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16015-07-9P 16635-00-0P
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                                          17515-80-9P
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1H-Benzotriazol-4-amine 18087-60-0P 18087-61-1P 18207-47-1P
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     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
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L42 ANSWER 10 OF 19 HCAPLUS COPYRIGHT 2004 ACS on STN
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     2004:414638 HCAPLUS
     140:406571
DN
ED
     Entered STN: 21 May 2004
     Preparation of 3,4-di-substituted cyclobutene-1,2-diones as CXC-chemokine
ΤI
     receptor ligands
TN
     Taveras, Arthur G.; Aki, Cynthia J.; Bond, Richard W.; Chao, Jianping;
     Dwyer, Michael; Ferreira, Johan A.; Chao, Jianhua; Yu, Younong; Baldwin,
     John J.; Kaiser, Bernd; Li, Ge; Merritt, J. Robert; Nelson, Kingsley H.;
     Rokosz, Laura L.
PA
     USA
     U.S. Pat. Appl. Publ., 308 pp., Cont.-in-part of U.S. Ser. No. 122,841.
so
     CODEN: USXXCO
DT
     Patent
LA
     English
     ICM A61K031-445
IC
     ICS A61K031-426; A61K031-4172; A61K031-421; A61K031-343; A61K031-137
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NCL
     514469000; 514397000; 546229000; 546334000
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     24-3 (Alicyclic Compounds)
     Section cross-reference(s): 1, 25, 63
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                                DATE
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                                                                    DATE
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                          C07D413/12; C07D413/14
     MARPAT 140:406571
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GI
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- AB Title compds. I [A = (un)substituted heterocycle, heterocyclealkyl, heteroaryl, heteroarylalkyl, cycloalkyl, etc.; B = (un)substituted aryl, heteroaryl, heterocycle, heteroarylarene, etc.], or a pharmaceutically acceptable salt or solvate thereof, are prepared and disclosed as cxc-chemokine receptor ligands. Thus, II was prepared by substitution of (dimethylaminocarbonylhydroxyphenylamino) (ethoxy)cyclobutenedione [preparation given] with (R)-2-amino-N,3-dimethylbutanamide monohydrochloride [preparation given]. Compds. of the invention demonstrated an IC50 value of < 20 .mu.M in CXCR1 SPA assay and < 5 .mu.M in CXCR2 SPA assay. I are useful for the treatment of chemokine-mediated diseases such as acute and chronic inflammatory disorders and cancer.
- ST cyclobutenedione prepn cxc chemokine receptor ligand antiinflammatory antitumor; alkylaminoarylamino cyclobutenedione stereoselective prepn cxc chemokine receptor ligand

II

IT Respiratory tract, disease

(Adult; stereoselective preparation of disubstituted cyclobutenediones as cxc-chemokine receptor ligands)

IT Chemokine receptors

RL: BSU (Biological study, unclassified); BIOL (Biological study)
(CXCR1; stereoselective preparation of disubstituted cyclobutenediones as cxc-chemokine receptor ligands)

IT Chemokine receptors

RL: BSU (Biological study, unclassified); BIOL (Biological study)
(CXCR2; stereoselective preparation of disubstituted cyclobutenediones as cxc-chemokine receptor ligands)

IT Intestine, disease

(Crohn's; stereoselective preparation of disubstituted cyclobutenediones as cxc-chemokine receptor ligands)

IT Sarcoma

(Kaposi's; stereoselective preparation of disubstituted cyclobutenediones as cxc-chemokine receptor ligands)

IT Respiratory distress syndrome

(acute; stereoselective preparation of disubstituted cyclobutenediones as cxc-chemokine receptor ligands)

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TT
     Transplant rejection
        (allotransplant; stereoselective preparation of disubstituted
        cyclobutenediones as cxc-chemokine receptor ligands)
IT
     Eye, disease
        (angiogenic; stereoselective preparation of disubstituted cyclobutenediones
        as cxc-chemokine receptor ligands)
IT
     Antiarteriosclerotics
        (antiatherosclerotics; stereoselective preparation of disubstituted
        cyclobutenediones as cxc-chemokine receptor ligands)
     Dermatitis
        (atopic; stereoselective preparation of disubstituted cyclobutenediones as
        cxc-chemokine receptor ligands)
IT
     Stomach, neoplasm
        (carcinoma; stereoselective preparation of disubstituted cyclobutenediones
        as cxc-chemokine receptor ligands)
IT
     Lung, disease
        (chronic obstructive; stereoselective preparation of disubstituted
        cyclobutenediones as cxc-chemokine receptor liqunds)
TΤ
     Allergy
        (delayed hypersensitivity; stereoselective preparation of disubstituted
        cyclobutenediones as cxc-chemokine receptor ligands)
IT
        (diabetic retinopathy; stereoselective preparation of disubstituted
        cyclobutenediones as cxc-chemokine receptor ligands)
IT
     Gingiva, disease
        (gingivitis; stereoselective preparation of disubstituted cyclobutenediones
        as cxc-chemokine receptor ligands)
TT
     Kidney, disease
        (glomerulonephritis; stereoselective preparation of disubstituted
        cyclobutenediones as cxc-chemokine receptor ligands)
     Transplant and Transplantation
        (graft-vs.-host reaction; stereoselective preparation of disubstituted
        cyclobutenediones as cxc-chemokine receptor ligands)
IT
     Sepsis
        (gram neg.; stereoselective preparation of disubstituted cyclobutenediones
        as cxc-chemokine receptor ligands)
     Eye, disease
TΤ
        (inflammation; stereoselective preparation of disubstituted
        cyclobutenediones as cxc-chemokine receptor ligands)
IT
     Intestine, disease
        (inflammatory; stereoselective preparation of disubstituted
        cyclobutenediones as cxc-chemokine receptor ligands)
IT
    Reperfusion
        (injury; stereoselective preparation of disubstituted cyclobutenediones as
        cxc-chemokine receptor ligands)
     Brain, disease
TΤ
     Heart, disease
        (ischemia; stereoselective preparation of disubstituted cyclobutenediones as
        cxc-chemokine receptor ligands)
TΤ
     Eye, disease
        (macula, degeneration; stereoselective preparation of disubstituted
        cyclobutenediones as cxc-chemokine receptor ligands)
TT
    Angiogenesis
        (neovascularization, eye; stereoselective preparation of disubstituted
        cyclobutenediones as cxc-chemokine receptor ligands)
IT
     Eye, disease
        (neovascularization; stereoselective preparation of disubstituted
        cyclobutenediones as cxc-chemokine receptor ligands)
TT
    Lung, neoplasm
        (non-small-cell carcinoma; stereoselective preparation of disubstituted
        cyclobutenediones as cxc-chemokine receptor ligands)
    Heart
        (reperfusion injury; stereoselective preparation of disubstituted
        cyclobutenediones as cxc-chemokine receptor ligands)
     Eye, disease
        (retrolental fibroplasia; stereoselective preparation of disubstituted
        cyclobutenediones as cxc-chemokine receptor ligands)
TΥ
     Shock (circulatory collapse)
        (septic; stereoselective preparation of disubstituted cyclobutenediones as
        cxc-chemokine receptor ligands)
     AIDS (disease)
IT
     Acne
     Alzheimer's disease
     Angiogenesis inhibitors
     Anti-AIDS agents
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Anti-Alzheimer's agents

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Anti-inflammatory agents
Anti-ischemic agents
Antiarthritics
Antiasthmatics
Anticoagulants
Antimalarials
Antitumor agents
Antiviral agents
Arteriosclerosis
Arthritis
Asthma
Asymmetric synthesis and induction
Atherosclerosis
Cystic fibrosis
Hepatitis
Herpesviridae
Human respiratory syncytial virus
Immunosuppressants
Inflammation
Malaria
Melanoma
Neoplasm
Psoriasis
Thrombosis
   (stereoselective preparation of disubstituted cyclobutenediones as
   cxc-chemokine receptor ligands)
Brain, disease
   (stroke; stereoselective preparation of disubstituted cyclobutenediones as
   cxc-chemokine receptor ligands)
Shock (circulatory collapse)
   (toxic shock syndrome; stereoselective preparation of disubstituted
   cyclobutenediones as cxc-chemokine receptor ligands)
Intestine, disease
   (ulcerative colitis; stereoselective preparation of disubstituted
   cyclobutenediones as cxc-chemokine receptor ligands)
Infection
   (viral; stereoselective preparation of disubstituted cyclobutenediones as
   cxc-chemokine receptor ligands)
Interleukin 8 receptors
RL: BSU (Biological study, unclassified); BIOL (Biological study)
   (.alpha.; stereoselective preparation of disubstituted cyclobutenediones as
   cxc-chemokine receptor ligands)
Interleukin 8 receptors
RL: BSU (Biological study, unclassified); BIOL (Biological study)
   (.beta.; stereoselective preparation of disubstituted cyclobutenediones as
   exc-chemokine receptor ligands)
473729-73-6P
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic
preparation); THU (Therapeutic use); BIOL (Biological study); PREP
(Preparation); RACT (Reactant or reagent); USES (Uses)
   (drug candidate; stereoselective preparation of disubstituted
   cyclobutenediones as cxc-chemokine receptor ligands)
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RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
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Uses)
(drug candidate; stereoselective preparation of disubstituted

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(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
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         (drug candidate; stereoselective preparation of disubstituted
         cyclobutenediones as cxc-chemokine receptor ligands)
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     RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
      (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
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         (drug candidate; stereoselective preparation of disubstituted
         cyclobutenediones as cxc-chemokine receptor ligands)
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     RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
      (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
         (stereoselective preparation of disubstituted cyclobutenediones as
         cxc-chemokine receptor ligands)
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     RL: PUR (Purification or recovery); RCT (Reactant); SPN (Synthetic
     preparation); PREP (Preparation); RACT (Reactant or reagent)
         (stereoselective preparation of disubstituted cyclobutenediones as
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RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU

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     473734-24-6P
                    473734-25-7P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (stereoselective preparation of disubstituted cyclobutenediones as
        cxc-chemokine receptor ligands)
                   473734-27-9P
IT
     473734-26-8P
                                  473734-28-0P
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     4-Cyclohexylfuran-2-carboxaldehyde
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     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (stereoselective preparation of disubstituted cyclobutenediones as
        cxc-chemokine receptor ligands)
IT
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     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (stereoselective preparation of disubstituted cyclobutenediones as
        cxc-chemokine receptor ligands)
     6739-22-6 HCAPLUS
RN
CN
    Ethanone, 2-cyclopropyl-1-phenyl- (9CI) (CA INDEX NAME)
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CH2-C-Ph
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L42 ANSWER 11 OF 19 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2004:392318 HCAPLUS
DN 140:400077
ED Entered STN: 14 May 2004
TI Pharmaceutical combinations including either a 5-HT4 receptor agonist or
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antagonist or a 5-HT3 receptor antagonist and a co-agent and their use in treating gastrointestinal and abdominal visceral disorders TN Billstein, Stephan Anthony; Dumovic, Peter; Franco, Nicola; Iwicki, Mark Thomas; Pfannkuche, Hans-Jurgen; Wilusz, Edward Joseph PA U.S. Pat. Appl. Publ., 14 pp., Cont.-in-part of U.S. Ser. No. 722,784, abandoned. CODEN: USXXCO DT Patent LΑ English IC ICM A61K031-5513 ICS A61K031-445 NCL 514221000; 514282000; 514317000 1-9 (Pharmacology) Section cross-reference(s): 63 FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE ----US 2004092511 20040513 US 2003-702688 A1 20031106 <--19991210 <--PRAI US 1999-266333P P US 2000-722784 B1 20001127 <--CLASS CLASS PATENT FAMILY CLASSIFICATION CODES PATENT NO. US 2004092511 ICM A61K031-5513 ICS A61K031-445 514221000; 514282000; 514317000 NCL The invention discloses a combination of a first agent including either a 5-HT4 receptor agonist or antagonist or a 5-HT3 receptor antagonist and a co-agent and pharmaceutical compns. and formulations containing the combination. The invention also discloses a method for treating a gastrointestinal and abdominal visceral disorder by administering the pharmaceutical compns. to a patient. The pharmaceutical compns. may also be employed as laxatives, to prepare a patient for colonoscopy and to regulate and stabilize enterochromaffin cell secretory, pain and motility mechanisms, afferent fiber activity and GI and lower abdominal smooth muscle cells. The dosage is preferably oral and administration is preferably once or twice a day. The preferred first agent is tegaserod. ST gastrointestinal abdominal visceral disorder serotoninergic 5HT4 agonist antagonist combination; serotoninergic 5HT3 antagonist combination gastrointestinal abdominal visceral disorder; tegaserod gastrointestinal abdominal visceral disorder IT 5-HT antagonists (5-HT3; combinations of 5-HT4 agonist or antagonist or 5-HT3 antagonist and co-agent for treatment of gastrointestinal and abdominal visceral disorders) TT 5-HT agonists 5-HT antagonists (5-HT4; combinations of 5-HT4 agonist or antagonist or 5-HT3 antagonist and co-agent for treatment of gastrointestinal and abdominal visceral disorders) ŤΤ Intestine, disease (Crohn's; combinations of 5-HT4 agonist or antagonist or 5-HT3 antagonist and co-agent for treatment of gastrointestinal and abdominal visceral disorders) IT Dopamine antagonists (D2; combinations of 5-HT4 agonist or antagonist or 5-HT3 antagonist and co-agent for treatment of gastrointestinal and abdominal visceral disorders) TT GABA receptors RL: BSU (Biological study, unclassified); BIOL (Biological study) (GABAB, agonists or modulators; combinations of 5-HT4 agonist or antagonist or 5-HT3 antagonist and co-agent for treatment of gastrointestinal and abdominal visceral disorders) IT Antihistamines (H2; combinations of 5-HT4 agonist or antagonist or 5-HT3 antagonist and co-agent for treatment of gastrointestinal and abdominal visceral disorders) IT Muscarinic antagonists (M1; combinations of 5-HT4 agonist or antagonist or 5-HT3 antagonist

and co-agent for treatment of gastrointestinal and abdominal visceral disorders) IT Natural products, pharmaceutical RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL

(Biological study); USES (Uses)

(Senna, senna concentrate; combinations of 5-HT4 agonist or antagonist or

Truong 09/960477 5-HT3 antagonist and co-agent for treatment of gastrointestinal and abdominal visceral disorders) IT Pain (abdominal pain and discomfort; combinations of 5-HT4 agonist or antagonist or 5-HT3 antagonist and co-agent for treatment of gastrointestinal and abdominal visceral disorders) Viscera IT (abdominal viscera disorder; combinations of 5-HT4 agonist or antagonist or 5-HT3 antagonist and co-agent for treatment of gastrointestinal and abdominal visceral disorders) IT Nerve (afferent fiber; combinations of 5-HT4 agonist or antagonist or 5-HT3 antagonist and co-agent for treatment of gastrointestinal and abdominal visceral disorders) Calcitonin gene-related peptide receptors TT RL: BSU (Biological study, unclassified); BIOL (Biological study) (agonists or antagonists; combinations of 5-HT4 agonist or antagonist or 5-HT3 antagonist and co-agent for treatment of gastrointestinal and abdominal visceral disorders) Tachykinin receptors TΤ RL: BSU (Biological study, unclassified); BIOL (Biological study) (agonists; combinations of 5-HT4 agonist or antagonist or 5-HT3 antagonist and co-agent for treatment of gastrointestinal and abdominal visceral disorders) TT Enkephalins RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (analogs; combinations of 5-HT4 agonist or antagonist or 5-HT3 antagonist and co-agent for treatment of gastrointestinal and abdominal visceral disorders) IT Cholecystokinin receptors RL: BSU (Biological study, unclassified); BIOL (Biological study) (antagonists; combinations of 5-HT4 agonist or antagonist or 5-HT3 antagonist and co-agent for treatment of gastrointestinal and abdominal visceral disorders) IT Flatulence (antiflatulents; combinations of 5-HT4 agonist or antagonist or 5-HT3 antagonist and co-agent for treatment of gastrointestinal and abdominal visceral disorders) IT Intestine (anus, anal incontinence; combinations of 5-HT4 agonist or antagonist or 5-HT3 antagonist and co-agent for treatment of gastrointestinal and abdominal visceral disorders) Alkaloids, biological studies RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL тт (Biological study); USES (Uses) (belladonna; combinations of 5-HT4 agonist or antagonist or 5-HT3 antagonist and co-agent for treatment of gastrointestinal and abdominal visceral disorders) TT Digestive tract (bloating; combinations of 5-HT4 agonist or antagonist or 5-HT3 antagonist and co-agent for treatment of gastrointestinal and abdominal visceral disorders) IT Intestine (colon, colonoscopy; combinations of 5-HT4 agonist or antagonist or 5-HT3 antagonist and co-agent for treatment of gastrointestinal and abdominal visceral disorders) TT 5-HT reuptake inhibitors Absorbents Analgesics Antacids Anti-inflammatory agents Antiemetics Antiulcer agents Anxiolytics Atropa belladonna Drug delivery systems Drug interactions Dyspepsia Gastrointestinal motility

Human

Nausea Ulcer

Immunomodulators Laxatives

Muscarinic antagonists

Vomiting

(combinations of 5-HT4 agonist or antagonist or 5-HT3 antagonist and co-agent for treatment of gastrointestinal and abdominal visceral disorders)

TΤ Enzymes, biological studies

Steroids, biological studies

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL

(Biological study); USES (Uses)

(combinations of 5-HT4 agonist or antagonist or 5-HT3 antagonist and co-agent for treatment of gastrointestinal and abdominal visceral disorders)

IΤ Bladder, disease

(cystitis, interstitial; combinations of 5-HT4 agonist or antagonist or 5-HT3 antagonist and co-agent for treatment of gastrointestinal and abdominal visceral disorders)

IT Bladder, disease

> (cystitis, spastic; combinations of 5-HT4 agonist or antagonist or 5-HT3 antagonist and co-agent for treatment of qastrointestinal and abdominal visceral disorders)

IT Viscera

> (disease, pain; combinations of 5-HT4 agonist or antagonist or 5-HT3 antagonist and co-agent for treatment of gastrointestinal and abdominal visceral disorders)

TT Intestine Stomach

> (enterochromaffin cell; combinations of 5-HT4 agonist or antagonist or 5-HT3 antagonist and co-agent for treatment of gastrointestinal and abdominal visceral disorders)

TT Pain

> (epigastric; combinations of 5-HT4 agonist or antagonist or 5-HT3 antagonist and co-agent for treatment of gastrointestinal and abdominal visceral disorders)

IT Intestine

> (evaculation; combinations of 5-HT4 agonist or antagonist or 5-HT3 antagonist and co-agent for treatment of gastrointestinal and abdominal visceral disorders)

IT Drug delivery systems

(fast-melt; combinations of 5-HT4 agonist or antagonist or 5-HT3 antagonist and co-agent for treatment of gastrointestinal and abdominal visceral disorders)

IT Feces

> (fecal softeners; combinations of 5-HT4 agonist or antagonist or 5-HT3 antagonist and co-agent for treatment of gastrointestinal and abdominal visceral disorders)

Digestive tract, disease TT

(gastroesophageal reflux; combinations of 5-HT4 agonist or antagonist or 5-HT3 antagonist and co-agent for treatment of gastrointestinal and abdominal visceral disorders)

IT Drugs

(gastrointestinal; combinations of 5-HT4 agonist or antagonist or 5-HT3 antagonist and co-agent for treatment of gastrointestinal and abdominal visceral disorders)

TΤ Intestine, disease

(ileus; combinations of 5-HT4 agonist or antagonist or 5-HT3 antagonist and co-agent for treatment of gastrointestinal and abdominal visceral disorders)

Tumor necrosis factors

RL: BSU (Biological study, unclassified); BIOL (Biological study) (inhibitors; combinations of 5-HT4 agonist or antagonist or 5-HT3 antagonist and co-agent for treatment of gastrointestinal and abdominal visceral disorders)

Intestine, disease IT

(irritable bowel syndrome; combinations of 5-HT4 agonist or antagonist or 5-HT3 antagonist and co-agent for treatment of gastrointestinal and abdominal visceral disorders)

TΤ Gastrointestinal hormone receptors

RL: BSU (Biological study, unclassified); BIOL (Biological study) (motilin, agonists or antagonists; combinations of 5-HT4 agonist or antagonist or 5-HT3 antagonist and co-agent for treatment of gastrointestinal and abdominal visceral disorders)

IT Vegetable

(natural vegetable stimulants; combinations of 5-HT4 agonist or antagonist or 5-HT3 antagonist and co-agent for treatment of gastrointestinal and abdominal visceral disorders)

IТ

Anti-inflammatory agents (nonsteroidal; combinations of 5-HT4 agonist or antagonist or 5-HT3

antagonist and co-agent for treatment of gastrointestinal and abdominal visceral disorders)

IT Drug delivery systems

(oral; combinations of 5-HT4 agonist or antagonist or 5-HT3 antagonist and co-agent for treatment of gastrointestinal and abdominal visceral disorders)

IT Physiological saline solutions

(phosphate-buffered; combinations of 5-HT4 agonist or antagonist or 5-HT3 antagonist and co-agent for treatment of gastrointestinal and abdominal visceral disorders)

IT Transport proteins

RL: BSU (Biological study, unclassified); BIOL (Biological study)
(proton pump, inhibitors; combinations of 5-HT4 agonist or antagonist
or 5-HT3 antagonist and co-agent for treatment of gastrointestinal and
abdominal visceral disorders)

IT Intestine

(pseudo-obstruction; combinations of 5-HT4 agonist or antagonist or 5-HT3 antagonist and co-agent for treatment of gastrointestinal and abdominal visceral disorders)

IT Digestive tract, disease

(pyrosis; combinations of 5-HT4 agonist or antagonist or 5-HT3 antagonist and co-agent for treatment of gastrointestinal and abdominal visceral disorders)

IT Digestive tract

(regurgitation; combinations of 5-HT4 agonist or antagonist or 5-HT3 antagonist and co-agent for treatment of gastrointestinal and abdominal visceral disorders)

IT Digestive tract

(relaxants; combinations of 5-HT4 agonist or antagonist or 5-HT3 antagonist and co-agent for treatment of gastrointestinal and abdominal visceral disorders)

IT Appetite

(satiety, early; combinations of 5-HT4 agonist or antagonist or 5-HT3 antagonist and co-agent for treatment of gastrointestinal and abdominal visceral disorders)

IT Muscle

(smooth, GI and lower abdominal; combinations of 5-HT4 agonist or antagonist or 5-HT3 antagonist and co-agent for treatment of gastrointestinal and abdominal visceral disorders)

IT Muscle relaxants

(spasmolytics; combinations of 5-HT4 agonist or antagonist or 5-HT3 antagonist and co-agent for treatment of gastrointestinal and abdominal visceral disorders)

IT Mast cell

(stabilizers; combinations of 5-HT4 agonist or antagonist or 5-HT3 antagonist and co-agent for treatment of gastrointestinal and abdominal visceral disorders)

IT Diet

(supplements, fiber supplement; combinations of 5-HT4 agonist or antagonist or 5-HT3 antagonist and co-agent for treatment of gastrointestinal and abdominal visceral disorders)

IT Antidepressants

(tricyclic; combinations of 5-HT4 agonist or antagonist or 5-HT3 antagonist and co-agent for treatment of gastrointestinal and abdominal visceral disorders)

IT Tachykinin receptors

RL: BSU (Biological study, unclassified); BIOL (Biological study)
(type NK1, agonists or antagonists; combinations of 5-HT4 agonist or
antagonist or 5-HT3 antagonist and co-agent for treatment of
gastrointestinal and abdominal visceral disorders)

IT Intestine, disease

(ulcerative colitis; combinations of 5-HT4 agonist or antagonist or 5-HT3 antagonist and co-agent for treatment of gastrointestinal and abdominal visceral disorders)

IT Pain

(visceral; combinations of 5-HT4 agonist or antagonist or 5-HT3 antagonist and co-agent for treatment of gastrointestinal and abdominal visceral disorders)

IT Opioids

RL: BSU (Biological study, unclassified); BIOL (Biological study) (.kappa.-; combinations of 5-HT4 agonist or antagonist or 5-HT3 antagonist and co-agent for treatment of gastrointestinal and abdominal visceral disorders)

IT Opioid antagonists

(.kappa.-opioid; combinations of 5-HT4 agonist or antagonist or 5-HT3 antagonist and co-agent for treatment of gastrointestinal and abdominal

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visceral disorders)
IT
      398507-81-8, DNK 333
      RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
      (Biological study); USES (Uses)
          (DNK 333; combinations of 5-HT4 agonist or antagonist or 5-HT3
          antagonist and co-agent for treatment of gastrointestinal and abdominal
          visceral disorders)
TΤ
      81-90-3, Ex-Lax
      RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
      (Biological study); USES (Uses)
          (Ex-Lax; combinations of 5-HT4 agonist or antagonist or 5-HT3
          antagonist and co-agent for treatment of gastrointestinal and abdominal
          visceral disorders)
      154775-08-3, L 737488
      RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
      (Biological study); USES (Uses)
          (L 737488; combinations of 5-HT4 agonist or antagonist or 5-HT3
          antagonist and co-agent for treatment of gastrointestinal and abdominal
         visceral disorders)
IT
      158276-60-9, PD 147714
      RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
      (Biological study); USES (Uses)
          (PD 147714; combinations of 5-HT4 agonist or antagonist or 5-HT3
          antagonist and co-agent for treatment of gastrointestinal and abdominal
          visceral disorders)
IT
      7440-69-9, Bismuth, biological studies
      RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
      (Biological study); USES (Uses)
          (bismuth-containing prepns.; combinations of 5-HT4 agonist or antagonist or
          5-HT3 antagonist and co-agent for treatment of gastrointestinal and
          abdominal visceral disorders)
      50-48-6, Amitriptyline 50-70-4, Sorbitol, biological studies
      Scopolamine. 51-55-8, Atropine, biological studies 68-88-2,
      Hydroxyzine
                       69-72-7D, Salicylic acid, derivs. 77-19-0, Dicyclomine
      89-57-6, Mesalamine. 101-31-5, Hyoscyamine. 114-07-8D, Erythromycin A,
      derivs. 125-71-3, Dextromethorphan 364-62-5, Metoclopramide 438-41-5, LIBRIUM 439-14-5, VALIUM 446-86-6, Azathioprine Sulfasalazine 603-50-9, Bisacodyl 915-30-0, Diphenoxylate
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      ()-Baclofen 1229-29-4, Sinequan 1305-62-0, Calcium hydroxide,
      biological studies 7429-90-5D, Aluminum, compds. 7439-95-4D,
Magnesium, compds. 8050-81-5, Simethicone 11041-12-6, Cholestyramine
      12794-10-4D, Benzodiazepine, derivs. 14611-51-9, Selegiline
      14882-18-9, Bismuth subsalicylate 15722-48-2, Olsalazine 28981-97-7,
      XANAX 34580-13-7, Ketotifen. 34911-55-2, Bupropion
      37300-21-3, Pentosan polysulfate 51481-61-9, Cimetidine
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      Loperamide 54739-18-3, Fluvoxamine 54910-89-3, Fluoxetine
      57717-80-3, CGP7930 57808-66-9, Domperidone. 59729-33-8, Citalopram
      60118-07-2D, Endorphin, analogs 61869-08-7, Paroxetine 66357-35-5,
     Ranitidine. 66514-99-6, S-Baclofen 69308-37-8, R-Baclofen 73590-58-6, Omeprazole 76824-35-6, Famotidine 76963-41-2, Nizatidine 79617-96-2, Sertraline 81098-60-4, Cisapride 83366-66-9, Nefazodone
      83863-69-8, Nor-cisapride 89565-68-4, Tropisetron 90182-92-6,
     Zacopride 90667-30-4, Cyanodothiepin 92623-85-3, Milnacipran 93413-69-5, Venlafaxine 97964-56-2, Lorglumide 99614-02-5, Ondansetron 102625-70-7, Pantoprazole 103420-77-5, L364718 103577-45-3,
      Lansoprazole. 104987-11-3, Tacrolimus 107097-80-3, Loxiglumide
      109889-09-0, Granisetron 112727-80-7, Renzapride 112885-41-3,
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     122852-42-0, Alosetron 123040-69-7, Azasetron 123258-98-0, DAU 6285
123618-00-8, Fedotozine. 125787-94-2, FK-224 127595-43-1, BIMU 1
127618-28-4, DAU 6215 127729-35-5, SK&F97541 128794-94-5,
Mycophenolate mofetil 129299-90-7, FK 1052 129623-01-4, GR82334
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      134296-40-5, BIMU 8 135911-02-3, RP-67580 135938-17-9, SB 203186 136982-36-0, CP-99994 137196-67-9, SDZ 205-557 138449-07-7, FK 888
      138752-34-8 141196-99-8, SC 53116 142001-63-6, SR-48968
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      147523-65-7, LY288513. 148700-85-0, L 733060 148702-58-3, SB 204070 148703-08-6, SB 207710 149250-10-2, S-16474 149719-06-2, RS 23597
      150705-88-7, CGP-49823 150785-53-8 151898-33-8, SC 53606
      152811-62-6, SB 207266 152923-56-3, Daclizumab 153438-49-4, RPR-100 153966-48-4, ANQ-11125 154967-61-0, L740093 155418-05-6, SR-140333
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158364-59-1, BY 841 158848-32-9, GR-159897
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      158991-23-2, PD 154075
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     161416-98-4, A-85380 166966-23-0, RPR-107880
     167710-87-4, RS 39604 167946-16-9 168266-90-8, GR 205171
      168398-02-5, GR-203040
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     168986-61-6, RS 67506
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     170566-84-4, LY 303870
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     171752-63-9, , ZD-7944
     171752-63-9, , ZD-7944 171859-02-2, RS 100235 172673-20-0, L758298 173050-51-6, SR-142801 174635-69-9, SB-222200 174636-32-9, SB-223412
     174769-78-9, S18523 174858-27-6, OT 7100 175413-81-7, SB 205149 176390-32-2, LY0353433 178307-42-1, YH1885. 179045-86-4, Basiliximab
     179474-81-8, Prucalopride 180046-99-5, SDZ-NKT-343 183005-37-0, SC
      56184 187724-85-2, L 741671 188241-50-1, S19752
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     MDL-105172A 195889-55-5, YH1238 196004-82-7, SB 205800 196004-83-8, SB 207058 201152-86-5, SR-144190 206052-25-7, MEN-11149 350610-61-6
     SB 207058 201152-86-5, SR-144190 206052-25-7, MEN-11149 350610-6
NKP-608A 439915-38-5, L-743986 439915-38-5D, L-743986, analogs
439915-42-1, RPR-106145 688320-93-6, R 59595 688321-02-0, DAU 6258
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     688321-03-1, H 40502 688321-07-5, BY 112 688321-08-6, L 363260 688321-17-7, ABT 269 688321-18-8, A 173508 688321-19-9, TKA 457
     688321-21-3, RPR 111905
                                   688321-22-4, YM 383336
     RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
      (Biological study); USES (Uses)
         (combinations of 5-HT4 agonist or antagonist or 5-HT3 antagonist and
         co-agent for treatment of gastrointestinal and abdominal visceral
         disorders)
IT
     125978-95-2, Nitric oxide synthase
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
         (inhibitors; combinations of 5-HT4 agonist or antagonist or 5-HT3
         antagonist and co-agent for treatment of gastrointestinal and abdominal
         visceral disorders)
IT
     34911-55-2, Bupropion
     RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
      (Biological study); USES (Uses)
         (combinations of 5-HT4 agonist or antagonist or 5-HT3 antagonist and
         co-agent for treatment of gastrointestinal and abdominal visceral
         disorders)
     34911-55-2 HCAPLUS
RN
     1-Propanone, 1-(3-chlorophenyl)-2-[(1,1-dimethylethyl)amino]- (9CI) (CA
CN
     INDEX NAME)
```

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L42 ANSWER 12 OF 19 HCAPLUS COPYRIGHT 2004 ACS on STN
AN
     2004:3672 HCAPLUS
DN
     140:35941
ED
     Entered STN: 04 Jan 2004
     Methods for treating Crohn's and other TNF associated diseases by
     administering bupropion
IN
     Altschuler, Eric
PΑ
     USA
SO
     U.S. Pat. Appl. Publ., 11 pp.
     CODEN: USXXCO
DT
     Patent
LA
     English
     ICM A61K031-137
IC
NCL
    514649000
     1-7 (Pharmacology)
CC
FAN.CNT 1
     PATENT NO.
                         KIND
                                DATE
                                            APPLICATION NO.
                                                                    DATE
PΙ
     US 2004002546
                                20040101
                                           US 2002-244037
                                                                    20020914 <--
                          A1
PRAI US 2001-322892P
                          P
                                20010915 <--
CLASS
 PATENT NO.
                 CLASS PATENT FAMILY CLASSIFICATION CODES
US 2004002546
                 ICM
                        A61K031-137
                        514649000
                 NCL
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Truong 09/960477 AΒ A new method employing a known compound, bupropion hydrochloride (.+-.)-1-(3-chlorophenyl)-2-[(1,1-dimethylethyl)amino]-1-propanone hydrochloride, and its analogs, in a new use for the treatment of TNF-related disorders is described. A patient with Crohn's disease was treated with bupropion. bupropion treatment Crohn disease; TNF assocd disease treatment bupropion Intestine, disease (Crohn's, treatment of; bupropion for treating Crohn's and other TNF associated diseases) IT Kidney, disease (IgA nephropathy, treatment of; bupropion for treating Crohn's and other TNF associated diseases) IT Disease, animal (associated with TNF, treatment of; bupropion for treating Crohn's and other TNF associated diseases) TT Antiglaucoma agents Antirheumatic agents Glaucoma (disease) Human Multiple sclerosis (bupropion for treating Crohn's and other TNF associated diseases) IT Tumor necrosis factors RL: ADV (Adverse effect, including toxicity); BSU (Biological study, unclassified); BIOL (Biological study) (bupropion for treating Crohn's and other TNF associated diseases) TT Disease, animal (chronic, treatment of anemia related to; bupropion for treating Crohn's and other TNF associated diseases) Heart, disease IT (failure; bupropion for treating Crohn's and other TNF associated IT Myeloproliferative disorders (myelodysplasia, treatment of; bupropion for treating Crohn's and other TNF associated diseases) IT Anemia (disease) Psoriasis

Psoriasis

Rheumatoid arthritis

(treatment of; bupropion for treating Crohn's and other TNF associated diseases)

IT Adrenoceptors

RL: ADV (Adverse effect, including toxicity); BSU (Biological study, unclassified); BIOL (Biological study)

(.beta.-, disease treatment without causing down-regulation of; bupropion for treating Crohn's and other TNF associated diseases)

I 31677-93-7, Bupropion hydrochloride 34911-55-2, Bupropion RL: BSU (Biological study, unclassified); PAC (Pharmacological activity);

THU (Therapeutic use); BIOL (Biological study); USES (Uses) (bupropion for treating Crohn's and other TNF associated diseases)

IT 34911-55-2, Bupropion

RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(bupropion for treating Crohn's and other TNF associated diseases)

RN 34911-55-2 HCAPLUS

CN 1-Propanone, 1-(3-chlorophenyl)-2-[(1,1-dimethylethyl)amino]- (9CI) (CA INDEX NAME)

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L42 ANSWER 13 OF 19 HCAPLUS COPYRIGHT 2004 ACS on STN
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AN 2003:678499 HCAPLUS

DN 139:191454

ED Entered STN: 29 Aug 2003

TI Aryl phosphate, thiophosphate, and aminophosphate inhibitors of intestinal apical membrane sodium/phosphate co-transport in humans

IN Peerce, Brian E.

PA US

SO U.S. Pat. Appl. Publ., 42 pp., Cont.-in-part of U.S. Ser. No. 40,708.

```
CODEN: USXXCO
DT
     Patent
LA
     English
     ICM A61K031-66
IC
     ICS C07F009-02
NCL
    514102000; 558156000; 558157000
     1-10 (Pharmacology)
CC
     Section cross-reference(s): 29, 63
FAN.CNT 2
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                                                                       DATE
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     US 2003162753
                           A1
                                  20030828
                                              US 2002-292916
                                                                       20000121 <--
     WO 2000043402
                           A2
                                  20000727
                                              WO 2000-US1681
         W: AE, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR,
              CU, CZ, CZ, DE, DE, DK, DK, DM, EE, EE, ES, FI, FI, GB, GD, GE,
             GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KR, KZ, LC,
             LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TR, TT, TZ, UA,
              UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
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     US 6355823
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                                               US 2002-40708
     US 2002133036
                           A1
                                  20020919
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     US 6787528
                                  20040907
                           B2
PRAI US 1999-126417P
                           P
                                  19990121
     WO 2000-US1681
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     US 2002-40708
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                           A2
CT.ASS
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 PATENT NO.
                 ICM
 US 2003162753
                         A61K031-66
                         C07F009-02
                 ICS
                  NCL
                         514102000; 558156000; 558157000
 US 2003162753
                  ECLA
                         C07F009/12; C07F009/18; C07F009/24C4
                         C07F009/12; C07F009/18; C07F009/24C4
 US 2002133036 ECLA
     MARPAT 139:191454
OS
AB
     Hydrophilic aryl phosphate, thiophosphate, and aminophosphate intestinal
     apical membrane sodium-mediated phosphate co-transport inhibitors are
     disclosed. The compds. can be administered orally, where they act to
     inhibit sodium-dependent phosphate uptake in the intestines, or
     internally, where they interact with the phosphate control functions of
     the kidneys and parathyroid. They are therefore useful for inhibiting
     alkaline phosphatase activity and sodium-mediated phosphate uptake, reducing
     serum PTH, calcium, calcitriol, and phosphate, and treating renal disease
     in an animal, including a human. Compds. of the invention include e.g.
     2'-phosphophloretin (preparation described).
ST
     sodium phosphate cotransport inhibitor aryl phosphate; thiophosphate aryl
     sodium phosphate cotransport inhibitor; aminophosphate aryl sodium
     phosphate cotransport inhibitor; intestine apical membrane sodium phosphate cotransport inhibitor; serum PTH calcium calcitriol aryl
     phosphate; phosphophloretin sodium phosphate cotransport inhibitor; renal
     disease aryl phosphate thiophosphate aminophosphate
ΙT
     Cell membrane
         (apical; aryl phosphate, thiophosphate, and aminophosphate inhibitors
         of intestinal apical membrane sodium/phosphate co-transport, and
        therapeutic use)
ΙT
     Human
     Intestine
       Kidney, disease
         (aryl phosphate, thiophosphate, and aminophosphate inhibitors of
        intestinal apical membrane sodium/phosphate co-transport, and
        therapeutic use)
IT
     Brush border
         (brush border membrane; aryl phosphate, thiophosphate, and
        aminophosphate inhibitors of intestinal apical membrane
        sodium/phosphate co-transport, and therapeutic use)
IT
     Biological transport
         (cotransport; aryl phosphate, thiophosphate, and aminophosphate
         inhibitors of intestinal apical membrane sodium/phosphate co-transport,
        and therapeutic use)
IT
     Drug delivery systems
         (oral; aryl phosphate, thiophosphate, and aminophosphate inhibitors of
         intestinal apical membrane sodium/phosphate co-transport, and
        therapeutic use)
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IT
     Drug delivery systems
         (parenterals; aryl phosphate, thiophosphate, and aminophosphate
         inhibitors of intestinal apical membrane sodium/phosphate co-transport,
        and therapeutic use)
     Transport proteins
IT
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
         (phosphate-sodium cotransporter; aryl phosphate, thiophosphate, and
        aminophosphate inhibitors of intestinal apical membrane
         sodium/phosphate co-transport, and therapeutic use)
     7440-23-5, Sodium, biological studies 7440-70-2, Calcium, biological studies 9001-78-9, Alkaline phosphatase 9002-64-6, Parathyroid hormone 14265-44-2, Phosphate, biological studies 32222-06-3, Calcitriol
IT
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
         (aryl phosphate, thiophosphate, and aminophosphate inhibitors of
        intestinal apical membrane sodium/phosphate co-transport, and
        therapeutic use)
IT
     286382-93-2P, 2'-Phosphophloretin
     RL: PAC (Pharmacological activity); PKT (Pharmacokinetics); SPN (Synthetic
     preparation); THU (Therapeutic use); BIOL (Biological study); PREP
     (Preparation); USES (Uses)
         (aryl phosphate, thiophosphate, and aminophosphate inhibitors of
         intestinal apical membrane sodium/phosphate co-transport, and
        therapeutic use)
IT
     586351-82-8P
     RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL
     (Biological study); PREP (Preparation)
         (aryl phosphate, thiophosphate, and aminophosphate inhibitors of
        intestinal apical membrane sodium/phosphate co-transport, and
        therapeutic use)
     51146-50-0P, 4-Phosphophloretin
286382-95-4P 286382-96-5P 28
TΤ
                                         51146-51-1P, 4'-Phosphophloretin
                                    286382-97-6P
     RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
     (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
     (Uses)
        (aryl phosphate, thiophosphate, and aminophosphate inhibitors of
        intestinal apical membrane sodium/phosphate co-transport, and
        therapeutic use)
TΤ
     286382-94-3
     RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
         (aryl phosphate, thiophosphate, and aminophosphate inhibitors of
        intestinal apical membrane sodium/phosphate co-transport, and
        therapeutic use)
IT
     586351-79-3P
     RL: PKT (Pharmacokinetics); SPN (Synthetic preparation); BIOL (Biological
     study); PREP (Preparation)
         (aryl phosphate, thiophosphate, and aminophosphate inhibitors of
        intestinal apical membrane sodium/phosphate co-transport, and
        therapeutic use)
TT
     60-81-1, Phlorizin
                                                 100-39-0, Benzyl bromide
                           60-82-2, Phloretin
     108-24-7, Acetic anhydride 108-73-6, Phloroglucinol 500-99-2, 3,5-Dimethoxyphenol 20734-67-2, 3,5-Dihydroxyaniline 22440-58
                                                                22440-58-0.
     4-Nitrocinnamoyl chloride 51202-76-7 52820-26-5 82575-52-8
     548792-20-7 586351-81-7
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (aryl phosphate, thiophosphate, and aminophosphate inhibitors of
        intestinal apical membrane sodium/phosphate co-transport, and
        therapeutic use)
     10272-07-8P, 3,5-Dimethoxyaniline 29287-33-0P
TT
                                                         42546-55-4P
                  76344-03-1P 126116-75-4P 286383-02-6P 286383-04-8P
     56798-34-6P
     286383-05-9P
                    586351-76-0P
                                     586351-77-1P 586351-78-2P 586351-80-6P
     586351-83-9P
                     586351-84-0P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (aryl phosphate, thiophosphate, and aminophosphate inhibitors of
        intestinal apical membrane sodium/phosphate co-transport, and
        therapeutic use)
     286382-93-2P, 2'-Phosphophloretin
IT
     RL: PAC (Pharmacological activity); PKT (Pharmacokinetics); SPN (Synthetic
     preparation); THU (Therapeutic use); BIOL (Biological study); PREP
     (Preparation); USES (Uses)
        (aryl phosphate, thiophosphate, and aminophosphate inhibitors of
        intestinal apical membrane sodium/phosphate co-transport, and
        therapeutic use)
RN
     286382-93-2 HCAPLUS
     1-Propanone, 1-[2,4-dihydroxy-6-(phosphonooxy)phenyl]-3-(4-hydroxyphenyl)-
CN
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(9CI) (CA INDEX NAME)

ANSWER 14 OF 19 HCAPLUS COPYRIGHT 2004 ACS on STN

L42

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2002:755212 HCAPLUS
AN
DN
     137:279361
ED
     Entered STN: 04 Oct 2002
     Preparation of nitrosated and nitrosylated .alpha.-adrenergic receptor
TI
     antagonists for the treatment of sexual dysfunction
     Garvey, David S.; Saenz De Tejada, Inigo; Gaston, Ricky D.; Khanapure,
IN
     Subhash P.; Shelekhin, Tatiana E.; Wang, Tiansheng
PA
so
     U.S. Pat. Appl. Publ., 61 pp., Cont.-in-part of U.S. 6,294,517.
     CODEN: USXXCO
DT
     Patent
LΑ
     English
     ICM A61K031-551
IC
     ICS A61K031-517; C07D043-02
NCL
     514218000
CC
     31-5 (Alkaloids)
     Section cross-reference(s): 1, 21, 34, 63
FAN.CNT 9
     PATENT NO.
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                                             APPLICATION NO.
                                                                     DATE
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PT
     US 2002143007
                          A1
                                 20021003
                                             US 2002-146671
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     US 5932538
                          Α
                                 19990803
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                                                                     19960202 <--
     US 5994294
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                                 19991130
                                                                     19960918 <--
                          Α
                                             US 1998-145143
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CLASS
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 US 2002143007
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                        A61K031-517; C07D043-02
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                        A61K045/06; C07C381/00; C07D211/62; C07D233/24;
                        C07D239/95; C07D401/04; C07D405/12; C07D459/00C2
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                        C07D233/24; C07D239/95; C07D401/04; C07D405/12;
                        C07D459/00C2
                                                                              ---
     MARPAT 137:279361
OS
GI
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* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Title compds. I, II, III, etc. [R1 = H, alkoxy; R2 = NMe(CH2)aNHCORC, 6,7-dimethoxy-1,2,3,4-tetrahydroisoquinolin-2-yl, etc.; a= 2, 3; Rc = heterocyclic, alkyl, hydroxyalkyl, etc.; D = NO, NO2, etc.; R3 = CH2N(4-MeC6H4)(3-DOC6H4), CH2Ph, 2-methoxy-1,4-benzodioxin-2-yl, etc.; D1 = H or D with the proviso that D1 must be D if there is no other D in the compound; R4 = H, D, CORd; R5 = H, C(0)ORk, etc.; Rd = H, alkyl, cycloalkyl, etc.; Rk = H, alkyl] were prepared For example, nitrosylation of thiol IV (X = H), e.g., prepared from 4-[2-(dimethylamino)ethoxy]-2-methyl-5-(methylethyl)phenyl acetate in 3-steps, with NaNO2/HC1 afforded IV.HCL (X = NO) in 82% yield. Compds. I, II, III, etc., donate, transfer or release nitric oxide or elevate levels of endogenous endothelium-derived relaxing factor, and are useful for treatment of sexual dysfunctions in males and females. In erectile response of anesthetized rabbits (2.5 kg), S-nitrosoglutathione, e.g., prepared from glutathione and NaNO2/HCl, at 500 .mu.g dosage was able to induce near maximal response relative to the standard

dose of pap/phent/PGE1. ST quinazoline nitrosated nitrosylated prepn alpha adrenergic receptor antagonist; yohimbine deriv nitrosated nitrosylated prepn alpha adrenergic receptor antagonist; glutathione deriv nitrosated nitrosylated prepn alpha adrenergic receptor antagonist; sexual dysfunction treatment nitrosated nitrosylated quinazoline yohimbine deriv; endothelium derived relaxing factor elevation nitrosated nitrosylated quinazoline Thiols (organic), biological studies TΤ RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (S-nitroso, donates, transfers or releases nitric oxide; preparation of nitrosated and nitrosylated .alpha.-adrenergic receptor antagonists for the treatment of sexual dysfunction) IT Heart, disease (angina pectoris, treatment of Printzmetal; preparation of nitrosated and nitrosylated .alpha.-adrenergic receptor antagonists for the treatment of sexual dysfunction) IT Prostate gland, disease (benign hyperplasia; preparation of nitrosated and nitrosylated .alpha.-adrenergic receptor antagonists for the treatment of sexual dysfunction) IT Ion channel blockers (calcium, compns. with; preparation of nitrosated and nitrosylated .alpha.-adrenergic receptor antagonists for the treatment of sexual dysfunction) IT Mental disorder (cognitive; preparation of nitrosated and nitrosylated .alpha.-adrenergic receptor antagonists for the treatment of sexual dysfunction) IT Dopamine agonists Opioid antagonists (compns. with; preparation of nitrosated and nitrosylated .alpha.-adrenergic receptor antagonists for the treatment of sexual dysfunction) Prostaglandins RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (compns. with; preparation of nitrosated and nitrosylated .alpha.-adrenergic receptor antagonists for the treatment of sexual dysfunction) IT Nervous system, disease (degeneration; preparation of nitrosated and nitrosylated .alpha.-adrenergic receptor antagonists for the treatment of sexual dysfunction) IT Cognition Sexual behavior (disorder; preparation of nitrosated and nitrosylated .alpha.-adrenergic receptor antagonists for the treatment of sexual dysfunction) TT Alkaloids, biological studies RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (ergot, compns. with; preparation of nitrosated and nitrosylated .alpha.-adrenergic receptor antagonists for the treatment of sexual dysfunction) IT Heart, disease (failure; preparation of nitrosated and nitrosylated .alpha.-adrenergic receptor antagonists for the treatment of sexual dysfunction) IT Alkanes, biological studies RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (halo, nitrated or nitrosylated derivs.; preparation of nitrosated and nitrosylated .alpha.-adrenergic receptor antagonists for the treatment of sexual dysfunction) Sexual behavior ΙT (impotence, treatment of; preparation of nitrosated and nitrosylated .alpha.-adrenergic receptor antagonists for the treatment of sexual dysfunction) IT Bladder, disease (incontinence; preparation of nitrosated and nitrosylated .alpha.-adrenergic receptor antagonists for the treatment of sexual dysfunction) TΤ Drug delivery systems (injections, intracavernosal; preparation of nitrosated and nitrosylated .alpha.-adrenergic receptor antagonists for the treatment of sexual dysfunction) TΤ Alcohols, biological studies Alkaloids, biological studies RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (nitrated or nitrosylated derivs.; preparation of nitrosated and nitrosylated .alpha.-adrenergic receptor antagonists for the treatment of sexual dysfunction) Amines, biological studies IT RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (nitrated or nitrosylated; preparation of nitrosated and nitrosylated

```
.alpha.-adrenergic receptor antagonists for the treatment of sexual
        dysfunction)
IT
     Drug delivery systems
        (oral; preparation of nitrosated and nitrosylated .alpha.-adrenergic
        receptor antagonists for the treatment of sexual dysfunction)
IT
        (potassium, compns. with; preparation of nitrosated and nitrosylated .alpha.-adrenergic receptor antagonists for the treatment of sexual
        dysfunction)
IT
     Antianginal agents
     Antihypertensives
     Glaucoma (disease)
     Human
     Hypertension
         (preparation of nitrosated and nitrosylated .alpha.-adrenergic receptor
        antagonists for the treatment of sexual dysfunction)
IT
     Anesthesia
         (reversing the state of; preparation of nitrosated and nitrosylated
         .alpha.-adrenergic receptor antagonists for the treatment of sexual
        dvsfunction)
TT
     Blood vessel, disease
         (spasm; preparation of nitrosated and nitrosylated .alpha.-adrenergic
        receptor antagonists for the treatment of sexual dysfunction)
IT
     Drug delivery systems
         (transdermal; preparation of nitrosated and nitrosylated .alpha.-adrenergic
        receptor antagonists for the treatment of sexual dysfunction)
IT
     Drug delivery systems
        (transurethral; preparation of nitrosated and nitrosylated
         .alpha.-adrenergic receptor antagonists for the treatment of sexual
        dysfunction)
IT
     Bladder
        (treatment of overactive; preparation of nitrosated and nitrosylated
         .alpha.-adrenergic receptor antagonists for the treatment of sexual
        dysfunction)
IT
     Adrenoceptor antagonists
        (.beta.-, compns. with; preparation of nitrosated and nitrosylated
         .alpha.-adrenergic receptor antagonists for the treatment of sexual
        dysfunction)
IT
     116243-73-3, Endothelin
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
         (compns. with antagonist of; preparation of nitrosated and nitrosylated
         .alpha.-adrenergic receptor antagonists for the treatment of sexual
        dysfunction)
IT
     9025-82-5, Phosphodiesterase
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (compns. with inhibitors of; preparation of nitrosated and nitrosylated
         .alpha.-adrenergic receptor antagonists for the treatment of sexual
        dysfunction)
                                                749-02-0, Spiperone
     58-61-7, Adenosine, biological studies
                                                                       19794-93-5,
     Trazodone 21102-95-4, BMY 7378 37221-79-7, Vasoactive intestinal
              57368-81-7, SNAP 1069
     peptide
                                        77472-95-8, Chloroethylclonidine
     89197-32-0, Efaroxan 157066-76-7, SNAP 5089
169505-93-5, RS 17053 179388-65-9, AH 11110A
                                                       160970-54-7, KMD 3213
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (compns. with; preparation of nitrosated and nitrosylated .alpha.-adrenergic
        receptor antagonists for the treatment of sexual dysfunction)
     56-85-9, Glutamine, biological studies 70-26-8, Ornithine
     L-Arginine, nitrated or nitrosylated derivs. 156-86-5D, L-Homoarginine,
                                         372-75-8, Citrulline
     nitrated or nitrosylated derivs.
                                                                 51209-75-7.
     S-Nitroso-cysteine 53054-07-2D, N.omega.-Hydroxy-L-arginine, nitrated or
     nitrosylated derivs. 56577-02-7, s-Nitroso-N-acetylcysteine
     79032-48-7, S-Nitroso-N-acetylpenicillamine
                                                    122130-63-6.
     S-Nitroso-captopril 139427-42-2, S-Nitroso-homocysteine
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (donates, transfers or releases nitric oxide; preparation of nitrosated and
        nitrosylated .alpha.-adrenergic receptor antagonists for the treatment
        of sexual dysfunction)
TТ
     10102-43-9, Nitric oxide, biological studies
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (donations, transfer or release of; preparation of nitrosated and
        nitrosylated .alpha.-adrenergic receptor antagonists for the treatment
        of sexual dysfunction)
IT
     1607-17-6P
                  23695-65-0P, Adamantan-2-thione
                                                      35231-36-8P
                                                                    50746-09-3P,
     3-Methyl-3-sulfanylbutyl acetate 154741-21-6P 183236-36-4P
     194596-78-6P
                    194596-88-8P
                                    194596-93-5P
                                                    194596-95-7P
                                                                   194596-99-1P
     194597-01-8P
                    194597-04-1P
                                                  194597-11-0P,
                                    194597-08-5P
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N-[2-[4-(2-Furylcarbonyl)piperazinyl]-6,7-dimethoxyquinazolin-4-yl]-3-
methyl-3-sulfanylbutanamide 194597-16-5P 194597-17-6P 194597-19-8P 194597-20-1P 194597-31-4P 251369-36-5P 251369-37-6P 251369-38-7P
                                260267-99-0P
260268-05-1P
                 260267-95-6P
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251369-39-8P
260268-03-9P
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                 260268-04-0P
                                                                    260268-07-3P
260268-08-4P 260268-10-8P 260268-14-2P 260268-15-3P
                                                                    260268-16-4P,
2-Methyl-1-piperazinyl-propan-2-thiol 260268-18-6P 260268-20-0P,
2-[2-[n-(2-Methyl-2-sulfanylpropyl)carbamoyl]phenyl]benzoic acid
                                260268-23-3P
               260268-22-2P
260268-21-1P
                                                   260268-24-4P
                                                                  260268-25-5P
260268-26-6P
                 464885-33-4P
                                  464885-35-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
    (intermediate; preparation of nitrosated and nitrosylated .alpha.-adrenergic
   receptor antagonists for the treatment of sexual dysfunction)
125978-95-2, Nitric oxide synthase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
    (preparation of nitrosated and nitrosylated .alpha.-adrenergic receptor
   antagonists for the treatment of sexual dysfunction)
50-53-3D, Chlorpromazine, nitrated or nitrosylated derivs.
Phentolamine, nitrated or nitrosylated derivs. 51-50-3D, Dibenamine,
nitrated or nitrosylated derivs. 52-86-8D, Haloperidol, nitrated
or nitrosylated derivs. 54-32-0D, Moxisylyte, nitrated or nitrosylated
           59-96-1D, Phenoxybenzamine, nitrated or nitrosylated derivs.
59-98-3D, Tolazoline, nitrated or nitrosylated derivs. 84-37-7D,
Pseudoyohimbine, nitrated or nitrosylated derivs. 92-84-2D,
Phenothiazine, nitrated or nitrosylated derivs. 110-85-0D, Piperazine,
nitrated or nitrosylated derivs. 110-89-4D, Piperidine, nitrated or
nitrosylated derivs. 120-72-9D, Indole, nitrated or nitrosylated derivs.
131-03-3D, Rauwolscine, nitrated or nitrosylated derivs. 253-82-7D,
Quinazoline, nitrated or nitrosylated derivs. 483-04-5D, Raubasine,
nitrated or nitrosylated derivs. 483-09-0D, Epi-3 .alpha.-yohimbine, nitrated or nitrosylated derivs. 486-04-4D, Corynathine, nitrated or
nitrosylated derivs. 504-75-6D, Imidazoline, nitrated or nitrosylated
derivs. 511-08-0D, Ergocristine, nitrated or nitrosylated derivs.
511-09-1D, Ergocryptine, nitrated or nitrosylated derivs. 523-13-7D,
Yohimbol, nitrated or nitrosylated derivs. 549-84-8D, .beta.-Yohimbine, nitrated or nitrosylated derivs. 564-36-3D, Ergocornine, nitrated or nitrosylated derivs. 613-67-2D, WB 4101, nitrated or nitrosylated
derivs. 642-17-1D, Akuammigine, nitrated or nitrosylated derivs.
2671-50-3D, Apoyohimbine, nitrated or nitrosylated derivs. 4287-19-8D,
Phenoxypropanolamine, nitrated or nitrosylated derivs. 6474-90-4D, Tetrahydroalstonine, nitrated or nitrosylated derivs. 8006-25-5D,
Tetrahydroalstonine, nitrated or nitrosylated derivs.
Ergotoxine, nitrated or nitrosylated derivs. 19216-56-9D, Prazosin,
nitrated or nitrosylated derivs. 23210-56-2D, Ifenprodil, nitrated or
nitrosylated derivs. 26844-12-2D, Indoramin, nitrated or nitrosylated
          34661-75-1D, Urapidil, nitrated or nitrosylated derivs.
derivs.
34661-85-3D, 5-Methylurapidil, nitrated or nitrosylated derivs.
35795-16-5D, Trimazosin, nitrated or nitrosylated derivs. 36894-69-6D,
Labetalol, nitrated or nitrosylated derivs. 40077-13-2D, BE 2254, nitrated or nitrosylated derivs. 41928-02-3D, 10-Hydroxy-yohimbine,
nitrated or nitrosylated derivs.
                                      57149-07-2D, Naftopil, nitrated or
nitrosylated derivs. 57262-94-9D, Setiptiline, nitrated or nitrosylated derivs. 63590-64-7D, Terazosin, nitrated or nitrosylated derivs.
67339-62-2D, ARC 239, nitrated or nitrosylated derivs. 71620-89-8D,
Reboxitine, nitrated or nitrosylated derivs. 72956-09-3D, Carvedilol,
nitrated or nitrosylated derivs. 74050-98-9D, Ketanserin, nitrated or
nitrosylated derivs. 74191-85-8D, Doxazosin, nitrated or nitrosylated
           79944-58-4D, Idazoxan, nitrated or nitrosylated derivs.
80755-51-7D, Bunazosin, nitrated or nitrosylated derivs. 81403-80-7D,
Alfuzosin, nitrated or nitrosylated derivs. 85650-52-8D, Mirtazipine,
nitrated or nitrosylated derivs. 90402-40-7D, Abanoquil, nitrated or nitrosylated derivs. 90880-94-7, Endothelium-derived relaxing factor 90961-53-8D, Tedisamil, nitrated or nitrosylated derivs. 92642-97-2D,
Benoxathian, nitrated or nitrosylated derivs. 102575-24-6D, RX 821002,
nitrated or nitrosylated derivs. 102669-89-6D, Saterinone, nitrated or
nitrosylated derivs. 103377-41-9D, Monatepil, nitrated or nitrosylated
          104054-27-5D, Atipamezole, nitrated or nitrosylated derivs.
derivs.
106133-20-4D, Tamsulosin, nitrated or nitrosylated derivs.
                                                                    110706-39-3D,
BRL 44409, nitrated or nitrosylated derivs. 113165-32-5D, Niguldipine,
nitrated or nitrosylated derivs. 115219-10-8D, BAM 1303, nitrated or
nitrosylated derivs. 118343-19-4D, BRL 44408, nitrated or nitrosylated
derivs. 119905-05-4D, Delequamine, nitrated or nitrosylated derivs.
122830-14-2D, Deriglidole, nitrated or nitrosylated derivs.
140405-13-6D, 11-Hydroxy-yohimbine, nitrated or nitrosylated derivs.
152735-23-4D, SB 216469, nitrated or nitrosylated derivs. 194674-08-3D,
HU 723, nitrated or nitrosylated derivs.
                                               194674-19-6D, SL 89.0591,
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IT

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nitrated or nitrosylated derivs.
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
         (preparation of nitrosated and nitrosylated .alpha.-adrenergic receptor
        antagonists for the treatment of sexual dysfunction)
IT
     54-32-0
               70-18-8, reactions 73-05-2 77-92-9, Citric acid, reactions
     100-51-6, Benzyl alcohol, reactions 108-30-5, Succinic anhydride,
                 108-55-4, Glutaric anhydride 110-15-6, Succinic acid, 110-85-0, Piperazine, reactions 110-87-2, Dihydropyran
     reactions
     reactions
     115-77-5, Pentaerythritol, reactions 146-48-5, Yohimbine 540-88-5, tert-Butyl acetate 700-58-3, Adamantan-2-one 1126-09-6, Ethyl isonipecotate 3772-13-2, 2,2-Dimethylthiirane 4480-83-5, Diglycolic
     anhydride 6050-13-1, Dibenz[c,e]oxepin-5,7-dione 19216-56-9,
     4-(4-Amino-6,7-dimethoxyquinazolin-2-yl)piperazinyl 2-furyl ketone
     24424-99-5, Di-tert-butyldicarbonate 32047-53-3, 1-Amino-2-methylpropane-
     2-thiol hydrochloride 34300-94-2, 3-Methyl-3-sulfanylbutan-1-ol
     39981-47-0, 1-Methylamino-2-methylpropan-2-thiol hydrochloride
     40077-13-2 54322-10-0 57149-07-2, 3-[4-(2-Methoxyphenyl)piperazinyl]-1-naphthyloxypropan-2-ol 58479-61-1 59681-08-2 59729-24-7,
     3-Methyl-3-sulfanylbutanoic acid 61040-78-6, 2,4,6-Trimethoxybenzyl
     alcohol 260268-09-5 260268-11-9
                                              260268-12-0
                                                            260268-17-5
     464885-34-5
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        (reactant; preparation of nitrosated and nitrosylated .alpha.-adrenergic
        receptor antagonists for the treatment of sexual dysfunction)
IT
     110-17-8P, Fumaric acid, preparation 260267-68-3P 260267-71-8P
                     260267-77-4P
                                    260267-80-9P 260267-87-6P 260268-19-7P
     260267-75-2P
     464885-30-1P
     RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic
     preparation); THU (Therapeutic use); BIOL (Biological study); PREP
     (Preparation); RACT (Reactant or reagent); USES (Uses)
        (target compound; preparation of nitrosated and nitrosylated
         .alpha.-adrenergic receptor antagonists for the treatment of sexual
        dysfunction)
TT
     57564-91-7P
                   251369-32-1P
                                    251369-33-2P
                                                    260267-69-4P
                                                                     260267-72-9P
     260267-76-3P
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     464885-27-6P
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                                     464885-29-8P
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                                                                      464885-32-3P
     RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
     (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
     (Uses)
         (target compound; preparation of nitrosated and nitrosylated
         .alpha.-adrenergic receptor antagonists for the treatment of sexual
        dysfunction)
IT
     52-86-8D, Haloperidol, nitrated or nitrosylated derivs.
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
         (preparation of nitrosated and nitrosylated .alpha.-adrenergic receptor
        antagonists for the treatment of sexual dysfunction)
     52-86-8 HCAPLUS
CN
     1-Butanone, 4-[4-(4-chlorophenyl)-4-hydroxy-1-piperidinyl]-1-(4-
     fluorophenyl) - (9CI) (CA INDEX NAME)
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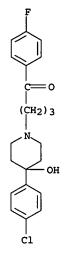
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L42 ANSWER 15 OF 19 HCAPLUS COPYRIGHT 2004 ACS on STN
AN
     2002:51903 HCAPLUS
DN
     136:107547
     Entered STN: 18 Jan 2002
ED
     Rapid-melt semisolid compositions for the delivery of prophylactic and
ΤI
     therapeutic agents
IN
     Cherukuri, Subraman Rao
     USA
PA
SO
     U.S. Pat. Appl. Publ., 16 pp., Cont.-in-part of U.S. Ser. No. 610,489.
     CODEN: USXXCO
DT
     Patent
LA
     English
IC
     ICM A61K009-20
     424465000
NCL
CC
     63-6 (Pharmaceuticals)
FAN.CNT 4
     PATENT NO.
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                                              APPLICATION NO.
                                                                       DATE
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                                  20030708
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              RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US,
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PRAI US 2000-610489
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 US 2002006440 ICM A61K009-20
                 NCL
                         424465000
                 ECLA A61K009/00M18B
ECLA A61K009/00M18B
 US 2002006440
 US 2002187188
     A novel rapid-melt, semisolid molded composition, including methods of making
     the same, for the delivery of prophylactic and therapeutic agents to a
     mammal wherein the prophylactic or therapeutic active is a psychotropic, a
     gastrointestinal therapeutic or a antimigraine agent is disclosed. Thus,
     8.00 g cocoa butter, 0.80 g lecithin and 2.00 g sorbitan monostearate were
     melted. PEG (6.0~g), 4.00~g glycerin and 0.40~g polyoxyethylene sorbitan ester were added to the melt. He mixture was mixed for 6 min at
     130.degree.F., and then for another 2 min at 120.degree.F. Xylitol (20.80
     g) were added to the mixture and mixed for 5 min at 120.degree.F.
     Microencapsulated acetaminophen (26.94 g) were added to the mixture and the
     mixture was mixed for 7 min. Red #40 (0.16 g), 0.40 g vanilla flavoring and
     0.80 g strawberry flavoring were added to the mixture, resulting in 200.30 g
     final mixture The mixture was mixed for 10 min, until all of the ingredients had been thoroughly mixed. The final mixture was molded into the final
     product and allowed to set-up. The resultant product contained 13.47%
     acetaminophen.
ST
     semisolid rapid melt drug delivery
IT
     Nose, disease
        (allergic rhinitis, inhibitors; rapid-melt semisolid compns. for
        delivery of prophylactic and therapeutic agents)
IT
     Prostate gland, disease
         (benign hyperplasia, inhibitors; rapid-melt semisolid compns.
        for delivery of prophylactic and therapeutic agents)
IT
     Insomnia
        (inhibitors; rapid-melt semisolid compns. for delivery of prophylactic
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and therapeutic agents)
IT
    Anti-inflammatory agents
        (nonsteroidal; rapid-melt semisolid compns. for delivery of
       prophylactic and therapeutic agents)
IT
    Anti-inflammatory agents
    Anticonvulsants
    Antidepressants
    Antidiarrheals
    Antiemetics
     Antimigraine agents
    Antiulcer agents
     Antiviral agents
    Anxiolytics
     Cardiovascular agents
     Fungicides
     Psychotropics
        (rapid-melt semisolid compns. for delivery of prophylactic and
        therapeutic agents)
    Opioids
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (rapid-melt semisolid compns. for delivery of prophylactic and
        therapeutic agents)
    Drug delivery systems
        (semisolid; rapid-melt semisolid compns. for delivery of prophylactic
        and therapeutic agents)
IT
    Digestive tract
        (therapeutic agents for; rapid-melt semisolid compns. for delivery of
       prophylactic and therapeutic agents)
                                                      50-49-7, Imipramine
IT
    50-47-5, Desipramine 50-48-6, Amitriptyline
     50-78-2, Aspirin 51-71-8, Phenelzine 52-28-8, Codeine phosphate 52-53-9, Verapamil 58-38-8, Prochlorperazine 72-69-5, Nortriptyline
     99-66-1 103-90-2, Acetaminophen 113-15-5, Ergotamine
     Tranylcypromine 303-49-1, Clomipramine 361-37-5, Methysergide
     364-62-5, Metoclopramide 438-60-8, Protriptyline 511-12-6,
     Dihydroergotamine 525-66-6, Propranolol 599-79-1, Sulfasalazine
     739-71-9, Trimipramine 915-30-0, Diphenoxylate 1668-19-5, Doxepin 6809-52-5, Teprenone 8029-99-0, Camphorated opium 10262-69-8,
                   14028-44-5, Amoxapine 15676-16-1, Sulpiride
     Maprotiline
                                                                    19794-93-5.
     Trazodone 34552-83-5, Loperamide hydrochloride 34911-55-2,
                 51481-61-9, Cimetidine 54739-18-3, Fluvoxamine
                                                                     56296-78-7,
     Bupropion
     Fluoxetine hydrochloride 66357-59-3, Ranitidine hydrochloride
     73590-58-6, Omeprazole 76824-35-6, Famotidine 76963-41-2, Nizatidine
     78246-49-8, Paroxetine hydrochloride 79559-97-0, Sertraline
     hydrochloride 80573-04-2, Balsalazide 81098-60-4, Cisapride
     83366-66-9, Nefazodone 85650-52-8, Mirtazapine 89565-68-4, Tropisetron
     93413-69-5, Venlafaxine
                              99300-78-4, Venlafaxine hydrochloride
     99614-01-4, Ondansetron hydrochloride 103577-45-3, Lansoprazole
     103628-48-4, Sumatriptan succinate 107007-99-8, Granisetron
     hydrochloride 115956-13-3, Dolasetron mesylate
                                                        117976-90-6,
     Rabeprazole sodium 121679-13-8, Naratriptan 139264-17-8, Zolmitriptan
     143322-58-1, Eletriptan 145202-66-0, Rizatriptan benzoate
                                                                    170277-31-3,
     Infliximab
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (rapid-melt semisolid compns. for delivery of prophylactic and
        therapeutic agents)
TT
     34911-55-2, Bupropion
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (rapid-melt semisolid compns. for delivery of prophylactic and
        therapeutic agents)
RN
     34911-55-2 HCAPLUS
     1-Propanone, 1-(3-chlorophenyl)-2-[(1,1-dimethylethyl)amino]- (9CI) (CA
     INDEX NAME)
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L42 ANSWER 16 OF 19 HCAPLUS COPYRIGHT 2004 ACS on STN AN 2001:869022 HCAPLUS

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DN
    135:366781
ED
     Entered STN: 30 Nov 2001
     Compositions and methods for treating particular chemical addictions and
ΤI
     mental illnesses
IN
     Pozuelo, Jose
PA
     Spain
     U.S. Pat. Appl. Publ., 15 pp., Cont.-in-part of U.S. Ser. No. 73,337,
SO
     abandoned.
     CODEN: USXXCO
DT
     Patent
LA
     English
     ICM A61K031-47
IC
     ICS A61K031-195; A61K031-45
NCL
     514310000
     1-12 (Pharmacology)
CC
     Section cross-reference(s): 4
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     PATENT NO.
                         KIND DATE
                                             APPLICATION NO.
                                                                     DATE
    US 2001047010
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PRAI US 1998-73337
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                         B2
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CLASS
                 CLASS PATENT FAMILY CLASSIFICATION CODES
 PATENT NO.
 US 20010047010 ICM A61K031-47
                 ICS
                        A61K031-195; A61K031-45
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AΒ
     Pharmaceutical compns. comprising an effective amount of
     alpha-methylparatyrosine (AMPT), and haloperidol, alpha methyl-para-tyrosine in combination with an effective amount of naltrexone
     are disclosed for treating addiction to an array of agents such as heroin,
     narcotics, cocaine, amphetamines and/or marijuana and for treating
     alcoholism and dependence on nicotine intake, such as smoking. Also
     disclosed are pharmaceutical compns. and related methods for treating
     various mental illnesses or conditions, such as for example, schizophrenia
     and manic depressive psychosis.
     addiction treatment methylparatyrosine haloperidol naltrexone; haloperidol
     schizophrenia treatment nicotine cocaine heroin narcotic abuse;
     antipsychotic chlorophenylhydroxypiperidinofluorobutyrophenone haloperidol
     marijuana dependence smoking
IT
     Drugs of abuse
        (abuse of; alpha methylparatyrosine, haloperidol and naltrexone for
        treatment of particular chemical addictions and mental illnesses)
IT
    Urine
        (alkalinizers; alpha methylparatyrosine, haloperidol and naltrexone for
        treatment of particular chemical addictions and mental illnesses)
IT
     Alcoholism
     Antipsychotics
     Drug dependence
     Narcotics
     Schizophrenia
     Tobacco smoke
        (alpha methylparatyrosine, haloperidol and naltrexone for treatment of
        particular chemical addictions and mental illnesses)
     Mental disorder
        (manic bipolar disorder; alpha methylparatyrosine, haloperidol and
        naltrexone for treatment of particular chemical addictions and mental
        illnesses)
IT
     Cannabis sativa
        (marijuana; alpha methylparatyrosine, haloperidol and naltrexone for
        treatment of particular chemical addictions and mental illnesses)
TΤ
     Behavior
        (smoking; alpha methylparatyrosine, haloperidol and naltrexone for
        treatment of particular chemical addictions and mental illnesses)
     50-36-2, Cocaine 54-11-5, Nicotine 64-17-5, Ethanol, biological studies 300-62-9, Amphetamine 561-27-3, Heroin
IT
     RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)
        (alpha methylparatyrosine, haloperidol and naltrexone for treatment of
        particular chemical addictions and mental illnesses)
    52-86-8, 4-[4-(p-Chlorophenyl)-4-hydroxypiperidino]-4'-fluorobutyrophenone 658-48-0 16590-41-3, Naltrexone
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES
     (Uses)
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L42 ANSWER 17 OF 19 HCAPLUS COPYRIGHT 2004 ACS on STN
    1997:780649 HCAPLUS
AN
DN
     128:48214
ED
     Entered STN: 13 Dec 1997
     Preparation of 3,5-diphenyl-2(5H)-furanone derivatives as nonpeptide
TI
     endothelin I antagonists
    Berryman, Kent Alan; Doherty, Annette Marian; Edmunds, Jeremy John; Patt,
IN
     William Chester; Plummer, Mark Stephen; Repine, Joseph Thomas
PA
     Warner-Lambert Co., USA
     U.S., 120 pp., Cont.-in-part of U.S. Ser. No. 278,882, abandoned.
so
     CODEN: USXXAM
DT
     Patent
LA
     English
IC
     ICM A61K031-36
     ICS A61K031-38; A61K031-44; A61K031-535
NCL
     514464000
     28-6 (Heterocyclic Compounds (More Than One Hetero Atom))
CC
     Section cross-reference(s): 1
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                         KIND
                                DATE
                                            APPLICATION NO.
                                                                   DATE
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    US 5691373
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AΒ Novel nonpeptide antagonists of endothelin I represented by formula [I; R1 = (un) substituted C3-12 cycloalkyl, Ph substituted with 1-5 substituents, naphthyl or heteroaryl optionally substituted with 1-5 substituents; R2 = C1-12 linear or branched alkyl, C3-12 linear or branched cycloalkyl, aryl optionally substituted with 1-5 substituents, heteroaryl optionally substituted with 1-3 substituents; R3 = (un) substituted C1-12 linear or branched alkyl, (un) substituted C3-12 cycloalkyl, aryl optionally substituted with 1-5 substituents, heteroaryl optionally substituted with 1-3 substituents; R4 = OH, OR5, (CH2)nOR5; wherein R5 = (un)substituted C1-7 alkyl; X = 0, S] or tautomeric open chain keto-acids forms thereof or pharmaceutically acceptable salt thereof are prepared Also described are pharmaceutical compns. of the above compds., which are useful in treating elevated levels of endothelin, acute and chronic renal failure, hypertension, myocardial infarction, myocardial ischemia, cerebral vasospasm, cerebral ischemia, cerebral infarction, cirrhosis, septic shock, congestive heart failure, endotoxic shock, subarachnoid hemorrhage, arrhythmia, asthma, preeclampsia, atherosclerotic disorders including Raynaud's disease and restenosis, angina, cancer, pulmonary hypertension, ischemic disease, gastric mucosal damage, hemorrhagic shock, ischemic bowel disease, stroke, benign prostatic hyperplasia (BPH), and diabetes. Thus, Me 2-benzoyl-2-phenylacetate derivative (II) and 3,4,5trimethoxybenzladehyde were refluxed in the presence of NaOMe in MeOH for 18 h and the solution was treated with AcOH and refluxed an addnl. 72 h, followed by saponification of the product with 1N aqueous NaOH and acidification to give 28% I (X = O, R1 = Q, R2 = 3,4,5-trimethoxyphenyl, R3 =4-methoxyphenyl, R4 = OH). The latter compound in vitro showed an antagonism of endothelin I-stimulated vasoconstriction in the rabbit femoral artery and sarafotoxin 6c-stimulated vasoconstriction in the rabbit pulmonary artery with pA2 values of 0.00025 and 0.34, resp. phenylfuranone prepn endothelin I antagonist; acute chronic renal failure; hypertension treatment diphenylfuranone; myocardial infarction treatment diphenylfuranone; ischemia myocardial treatment diphenylfuranone; cerebral vasospasm ischemia infarction treatment diphenylfuranone; cirrhosis treatment diphenylfuranone; septic shock treatment diphenylfuranone; congestive heart failure treatment diphenylfuranone; endotoxic shock treatment diphenylfuranone; subarachnoid hemorrhage treatment diphenylfuranone; arrhythmia treatment diphenylfuranone; asthma treatment diphenylfuranone; preeclampsia treatment diphenylfuranone; atherosclerotic disorder treatment diphenylfuranone; Raynaud disease treatment diphenylfuranone; restenosis treatment diphenylfuranone; angina treatment diphenylfuranone; cancer treatment diphenylfuranone; pulmonary hypertension treatment diphenylfuranone; gastric mucosal damage treatment diphenylfuranone; hemorrhagic shock treatment diphenylfuranone; ischemic bowel disease treatment diphenylfuranone; stroke treatment diphenylfuranone; benign prostatic hyperplasia treatment diphenylfuranone; diabetes treatment diphenylfuranone IT Blood vessel, disease

(Raynaud's phenomenon; preparation of diphenylfuranone derivs. as nonpeptide endothelin I antagonists for disease treatment)

TT Heart, disease

> (angina pectoris; preparation of diphenylfuranone derivs. as nonpeptide endothelin I antagonists for disease treatment)

IT Antiarteriosclerotics

 $(antia the rosclerotics; \ preparation \ of \ diphenyl furanone \ derivs. \ as \ nonpeptide$ endothelin I antagonists for disease treatment)

IT Prostate gland

(benign hyperplasia; preparation of diphenylfuranone derivs. as nonpeptide endothelin I antagonists for disease treatment)

IT Brain, disease

(cerebrum, vasospasm; preparation of diphenylfuranone derivs. as nonpeptide endothelin I antagonists for disease treatment)

IT Artery, disease

(coronary, restenosis; preparation of diphenylfuranone derivs. as nonpeptide

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endothelin I antagonists for disease treatment)
IT
    Kidney, disease
        (failure, acute; preparation of diphenylfuranone derivs.
        as nonpeptide endothelin I antagonists for disease treatment)
IT
    Kidney, disease
        (failure, chronic; preparation of diphenylfuranone
        derivs. as nonpeptide endothelin I antagonists for disease treatment)
IT
    Heart, disease
        (failure; preparation of diphenylfuranone derivs. as nonpeptide endothelin I
        antagonists for disease treatment)
IT
    Shock (circulatory collapse)
        (hemorrhagic; preparation of diphenylfuranone derivs. as nonpeptide
        endothelin I antagonists for disease treatment)
IT
     Brain, disease
     Heart, disease
        (infarction; preparation of diphenylfuranone derivs. as nonpeptide
        endothelin I antagonists for disease treatment)
     Brain, disease
     Heart, disease
     Intestine, disease
        (ischemia; preparation of diphenylfuranone derivs. as nonpeptide endothelin
        I antagonists for disease treatment)
IT
    Stomach
        (mucosa, damage; preparation of diphenylfuranone derivs. as nonpeptide
        endothelin I antagonists for disease treatment)
     Antiarrhythmics
     Antiasthmatics
     Antidiabetic agents
     Antihypertensives
     Antitumor agents
     Cirrhosis
     Ischemia
     Preeclampsia
        (preparation of diphenylfuranone derivs. as nonpeptide endothelin I
        antagonists for disease treatment)
IT
    Hypertension
        (pulmonary; preparation of diphenylfuranone derivs. as nonpeptide endothelin
        I antagonists for disease treatment)
IT
     Shock (circulatory collapse)
        (septic; preparation of diphenylfuranone derivs. as nonpeptide endothelin I
        antagonists for disease treatment)
IT
     Brain, disease
        (stroke; preparation of diphenylfuranone derivs. as nonpeptide endothelin I
        antagonists for disease treatment)
IT
    Meninges
        (subarachnoid hemorrhage; preparation of diphenylfuranone derivs. as
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62-53-3, Benzenamine, reactions 66-77-3, 1-Naphthaldehyde 66-99-9,
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86-51-1, 2,3-Dimethoxybenzaldehyde 86-81-7, 3,4,5-Trimethoxybenzaldehyde
89-98-5, o-Chlorobenzaldehyde 93-02-7, 2,5-Dimethoxybenzaldehyde 94-41-7, Chalcone 97-96-1, 2-Ethylbutyraldehyde 98-03-3, 2-Thiophenecarboxaldehyde 99-02-5, m-Chloroacetophenone 99-91-2
99-93-4, 4'-Hydroxyacetophenone 100-06-1 100-10-7,
4-(Dimethylamino)benzaldehyde 100-39-0, Benzyl bromide
Benzylamine, reactions 100-50-5, 1,2,5,6-Tetrahydrobenzaldehyde 100-52-7, Benzaldehyde, reactions 104-87-0 104-88-1, p-Chlorobenzaldehyde, reactions 106-95-6, Allyl bromide, reactions
107-18-6, 2-Propen-1-ol, reactions 110-62-3, Valeraldehyde 120-14-9, 3,4-Dimethoxybenzaldehyde 120-57-0, Piperonal 122-00-9 122-03-2, 4-Isopropylbenzaldehyde 122-85-0, 4-Acetamidobenzaldehyde 123-11-5, p-Anisaldehyde, reactions 123-41-1, Choline hydroxide 135-02-4,
2-Methoxybenzaldehyde 137-43-9, Bromocyclopentane 151-50-8, Potassium
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Trifluoromethylbenzaldehyde 456-48-4, 3-Fluorobenzaldehyde
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m-Chlorobenzaldehyde
2,4-Dimethoxybenzaldehyde 620-23-5, m-Tolylaldehyde 620-24-6,
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1122-91-4, 4-Bromobenzaldehyde 1129-28-8 1131-62-0,
3',4'-Dimethoxyacetophenone 1226-42-2, 4,4'-Dimethoxybenzil
1443-80-7, 4'-Cyanoacetophenone 1489-69-6, Cyclopropylcarboxaldehyde
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2038-03-1, N-(2-Aminoethyl)morpholine 2043-61-0,
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2243-42-7, o-Phenoxybenzoic acid 2426-87-1, 3-Methoxy-4-benzyloxybenzaldehyde 2538-98-9 2642-63-9, 3',4'-Dichloroacetophenone
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TT

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AN
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     Entered STN: 16 Feb 1993
     Apparatus and methods for administering medicaments by direct contact to
ΤI
     the buccal mucosa
IN
     Stanley, Theodore H.
     University of Utah, USA
PA
so
     U.S., 22 pp. Cont.-in-part of U.S. 4,863,737.
     CODEN: USXXAM
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AB
    A mucosal dome is described for dose-to-effect transmucosal drug
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AB A mucosal dome is described for dose-to-effect transmucosal drug administration. The drug is placed in a chamber inside the device, which is directly to the surface of the buccal mucosa. The delivery rate of the drug is controlled by adjusting the contact area between the drug and mucosa, or by adding a penetration enhancer to the drug. The device was used for the transbuccal delivery of insulin to dogs. An solution (pH 8.3-8.6; NaOH) containing 450 U insulin/mL and 8.8% Na cholate (penetration enhancer) was used. The contact area was 1.89 cm2.

ST mucosa mouth drug delivery device

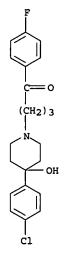
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      Antiemetics
       Bronchodilators
       Cardiovascular agents
      Nervous system agents
       Opioids
       RL: BIOL (Biological study)
           (mucosal delivery of, buccal device for)
      Alcohols, biological studies
TT
      Bile salts
       Fatty acids, biological studies
       RL: BIOL (Biological study)
           (penetration enhancer, for mucosa buccal drug delivery)
IT
      Opioids
      RL: BIOL (Biological study)
           (antagonists, mucosal delivery of, buccal device for)
TT
      Kidney, disease
           (circulatory, treatment of, drugs for, mucosal buccal device for)
TΤ
      Respiratory tract
           (disease, treatment of, drugs for, mucosal buccal device for)
IT
      Headache
           (migraine, treatment of, drugs for, mucosal buccal device for)
IT
      Pharmaceutical dosage forms
           (mucosal, buccal, device for delivery of)
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      Albuterol 20594-83-6 21829-25-4, Nifedipine 23031-25-6, Terbutaline 23593-75-1, Clotrimazole 28860-95-9, Carbidopa 28911-01-5, Triazolam 33125-97-2, Etomidate 36894-69-6 42200-33-9, Nadolol 51384-51-1 54182-58-0, Sucralfate 54767-75-8, Suloctidil 56030-54-7, Sufentanil 59467-70-8, Midazolam 59708-52-0, Carfentanil 61380-40-3, Lofentanil
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           (penetration enhancer, for mucosa buccal drug delivery)
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      RL: BIOL (Biological study)
           (mucosal delivery of, buccal device for)
RN
      52-86-8 HCAPLUS
      1-Butanone, 4-[4-(4-chlorophenyl)-4-hydroxy-1-piperidinyl]-1-(4-
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L42 ANSWER 19 OF 19 HCAPLUS COPYRIGHT 2004 ACS on STN
AN
     1989:18549 HCAPLUS
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     Entered STN: 21 Jan 1989
ED
     Combinations of renal vasodilators and .alpha.1-adrenergic or ganglionic
ΤI
     blocking agents and their use for treating renal disease, cardiovascular
     disease, or hypertension
IN
     Hintze, Thomas H.
     New York Medical College, USA
PA
SO
     U.S., 14 pp.
     CODEN: USXXAM
DT
     Patent
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     English
IC
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     1-8 (Pharmacology)
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AB
     Combinations of atriopeptins having renal vasodilator activity and
     .alpha.-adrenergic or ganglionic blocking agents are used for the
     treatment of renal disease, cardiovascular disease, and hypertension. Infusion of atriopeptin-24 to dogs caused an initial transient increase of
     renal blood flow of 13% and a decrease in renal vascular resistance of 27%
     and the effects returned to normal levels after 30 min. However,
     treatment with prazosin prior to infusion of atriopeptin caused a
     sustained renal vasodilation; at 30 min, renal blood flow was increased by .apprx.13% and remained elevated for the duration of the atriopeptin
     infusion; at that time urine flow rate, glomerular filtration rate, and Na
     and K excretion increased by 96, 109, 145, and 71%, resp. atriopeptin prazosin kidney disease; cardiovascular disease atriopeptin
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adrenergic blocker; ganglionic blocker atriopeptin antihypertensive
IT
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        (atriopeptins and .alpha.1-adrenergic blockers or ganglionic blocking
        agents)
     Alkaloids, biological studies
IT
     RL: BIOL (Biological study)
        (ergot, pharmaceuticals containing atriopeptin and, for treatment of renal
        and cardiovascular diseases and hypertension)
     Ganglionic blocking agents
TT
        (renal and cardiovascular diseases and hypertension treatment with
        atriopeptin and)
ΙT
     Kidney, disease or disorder
        (treatment of, with pharmaceuticals containing atriopeptins and
        .alpha.1-adrenergic blockers or ganglionic blocking agents)
IT
     Cardiovascular system
        (disease, treatment of, with pharmaceuticals containing atriopeptins and
        .alpha.1-adrenergic blockers or ganglionic blocking agents)
IT
     Vasodilators
        (renal, renal and cardiovascular diseases and hypertension treatment
        with .alpha.1-adrenergic blocking or ganglionic blocking agents and)
     Adrenergic antagonists
IT
        (.alpha.1-, renal and cardiovascular diseases and hypertension
        treatment with atriopeptin and)
IT
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        (renal and cardiovascular diseases and hypertension treatment with
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RL: BIOL (Biological study)
        (renal and cardiovascular diseases treatment by atriopeptins and)
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     RL: BIOL (Biological study)
        (renal and cardiovascular diseases treatment by atriopeptins and)
     52-86-8 HCAPLUS
RN
CN
     1-Butanone, 4-[4-(4-chlorophenyl)-4-hydroxy-1-piperidinyl]-1-(4-
     fluorophenyl) - (9CI) (CA INDEX NAME)
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